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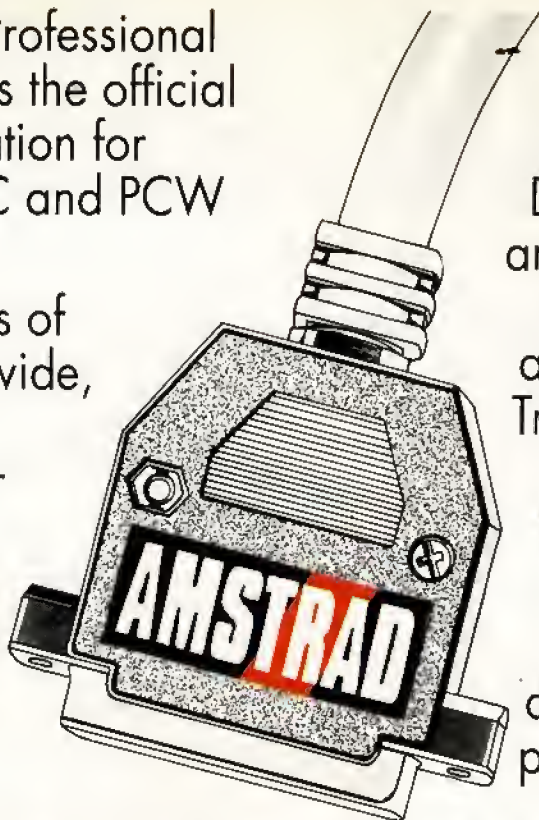
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ABC - Jul - Dec 89 - 29,688

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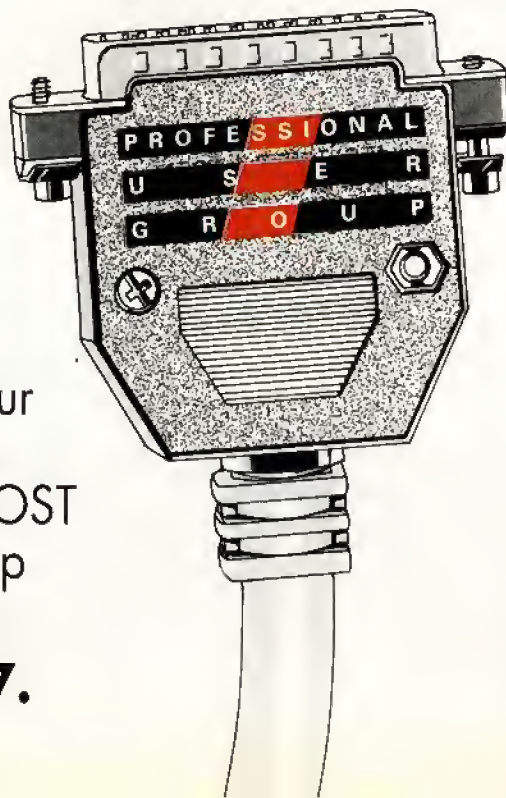
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Comms a time ...

It can be quite frustrating arriving, for the first time, alone in a strange country unable to perform anything more proficient in the indigenous language than ordering a cup of coffee. But that's precisely how most personal computer owners feel when they are first confronted by the jargon-rich world of communications.

It's a pity that the substantial and very real benefits that the world of communications offers you as a PCW owner have to be so besmirched and muddled by the impenetrable cloud of language surrounding them. What should be a relatively straightforward process passes silently and irretrievably into the domain of arcane computer lore; enter this kingdom at your peril. So why should you even think about making

friends with comms? Simple: it enables you to access information in as time-effective a way as possible. It doesn't have to be solely computer-related information either.

As we hope our recent series of "on-line" articles has shown, computer communications allows you to do anything as diverse as making an airline reservation to Bali to finding out what The Guardian had to say about the Brighton Vintage Car Rally this month three and a half years ago. It can help you maintain contact and swap ideas with like-minded people pursuing similar interests. This month, for example, we've attempted to show you just how easy it can be to access a typical PCW bulletin board.

Our feature aims to shed as much light as possible on information technology. Deshrouded of its mystery, it can provide you with the gateway to a world of information and help. Here's hoping it really will be as easy as a phone-call.

Foreword thinking

Sending off your latest hope-laden manuscript/article to an awaiting publisher/magazine editor is harrowing enough without that sudden sick realisation that you have forgotten to include in the text something important. Similarly, how many times do you stop – midflow – to scribble a hasty reminder to yourself on the back of envelope not to forget to include such and such an idea later on in the document you're writing?

It may well be that Bath-based Software Imperative (of Flipper fame) have come up with the permanent solution to this long series of writers' pitfalls and bugbears. The program in question (for a program it is) is called, quite simply, Foreword.

It works as a kind of ideas and outline processor. In other words, you can, with Foreword's help, slowly piece together the skeleton of an article, dissertation or manuscript, idea upon idea, paragraph upon paragraph. Begin, for example, by thinking about the major tenet or thrust of the article you will write; determine exactly what you want to convey in each paragraph and encapsulate it in a single sentence. Work your way through the document in this way.

Once you've assembled the bare bones of the document, in the form of these 'headers', you can go back through the paragraphs slowly fleshing them all out – with paragraph sub-texts, sub sub-texts and so on. The program's method of "crunching" the whole of a document's contents into what is a visually economical – and therefore easily assimilable – form means, says Andy Wilton, the man behind Software Imperative and Foreword – that "even in its more advanced stages, you can still see the wood for the trees. And you don't suddenly come up against any brick walls whereby the program can't handle any more text." Foreword, he informs us, has up to eight consecutive levels of text entry.

As you continue to add meat to the bones, you will probably find that you need to shuffle ideas around, alter the sequence of some of the paragraphs – and so on. Foreword, say its creators, takes the hard graft out of the creative process and helps you to painlessly transform raw copy into the finished polished product that the eventual recipient will be dying to read.

Foreword's ace in the pack, however, is its ability to converse fluently, easily and quickly with LocoScript 2. You can import your Foreword article, at any stage of its maturity, into a LocoScript document for further refining. The imported document floods its way and very quickly across the LocoScript screen at a rate of 150-200 words a minute. You can stop at any point in the transfer process. Entire paragraphs reformat automatically any time you press a key – no need to wait for the [RELAY] key to rearrange your words.

"If you are a dedicated LocoScript user," comments Andy Wilton, "you will never have to boot up CP/M to use this program. Similarly, if you threw your systems disc away when you bought your machine, you won't have to go rummaging around in the bin to find it again to use Foreword." Confirmed Protext users shouldn't despair, however. Foreword works with CP/M word processors too.

So, what's the damage? Software Imperative will be releasing Foreword, priced £39.99, sometime between the beginning and the middle of July. As soon as this happens, we'll be reviewing it. It sounds good: watch this space!

That's the spirit!

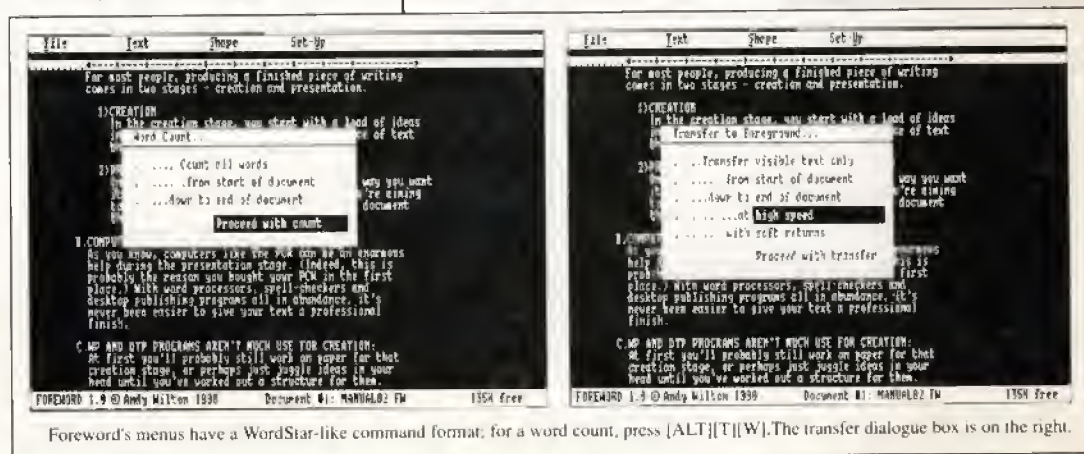
So capable is the PCW when it comes to the world of comms, that it can even get in touch with the spirits of those departed. Psychic counsellor Ken Limage has had a program written for his 8256 which enables him to converse with members of the spirit kingdom. "I have about six regular contacts with whom I converse fairly frequently" explained Mr Limage, "and one night I dreamt that a friend had come up with a computer program which would allow me to ask my correspondents questions, and receive answers in a simple 'yes' or 'no' form." Sure enough, the friend obliged, and Ken now has regular chats about all kinds of topics with his spirit companions. "I had a conversation with Winston Churchill the other day" said Ken. "He told me that Hitler was still alive, but that on no account should anyone try to find him".

The predictions which have been made by some of his less famous contacts have been uncannily accurate. "A friend of mine was told that there would be death in his environment in the near future" Ken told us, "and within the next few days his mother-in-law passed away. He was also told to expect some kind of delay in dealing with the death, which turned out to be true. He was held up for two days trying to get a boat across to sort out the funeral".

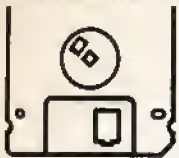
The spirits even predicted the outcome of the opening match of the World Cup, between Argentina and Cameroon. "I asked if Argentina would win, and the answer was 'No'. I was so amazed that I then asked

by Sophie Lankenau

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Save yourself a lot of time and money by using this set of over 80 ready-to-print Locoscript forms. Use them as they are or edit them to your requirements. Disc includes Personal Organiser, Home, Finance, Planner and Business sections.

UTILITY PLUS £19.95
Packed with time-saving programs to get the best out of your PCW - Address Book and Mailing Label Printer, File Sorter, Converter for text to multi-column format, Letter, Word and Sentence Counter, Dot Matrix Printer Set-Up Commands and more.

HYPERTEXT £19.95
Regard it as a 3-dimensional text processor. Subject words used in one level are described in more detail in lower level. Words in the lower level can be further amplified in the next level etc. Hypertext works in a similar way to the human brain by retrieving information using associative links between topics. A very powerful tool when assembling documentation and reference materials.

EXPERT SYSTEM £19.95
Helps analyse a problem logically. Build your own custom knowledge base. Maintain a database of information which is linked by a pre-defined set of rules. Each rule specifies the facts which have to be true before a conclusion can be reached. A typical expert system would ask a series of questions. Each answer given leads to a more detailed question until the system is ready for an solution.

TEXTBASE £19.95
Textbase is designed to assemble a database from a series of previously created text (ASCII) files. Once assembled in the database the files can be searched, sorted, printed etc.

SECURITY £19.95
Ensure that only authorised persons have access to your PCW, using simple password control to unlock your files, with a key word or key phrase of up to 255 characters.

SUPASAT £19.95
A large collection of statistical programs and utilities designed to run under Mallard BASIC. Easy to use with full menu selection.

ADVANTAGE ENTERTAINMENT SOFTWARE	NEW LOW PRICES	1 Disc	£9.95	Over 3 Discs	
		2 Discs	£14.95	£7.50 Each	
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SLIDER £9.95
A unique computer version of the mechanical sliding squares puzzle. Pictures are divided up on a grid of squares, which are then mixed up; your task is to slide them around to re-assemble the pictures.

PCW-DRAUGHTS £9.95
A well-presented and challenging version of the well-known board game, played against the computer. Large, clearly presented board making the most of the PCW's hi-resolution graphics.

VERBIAGE £9.95
A novel computer game based on the popular TV Quiz "COUNTDOWN". Take turns with the computer to choose 9 letters from the alphabet by stating VOWEL or CONSONANT. Make the longest word you can - the computer will do the same. Whoever has the longest word wins!

TRIVIA QUIZ £9.95
A multi-choice game with plenty of last-action graphics and sound, competitive scoring and a wide variety of questions. Gameplay is easy to understand and each round is short enough to maintain interest. For age 8 to adult. "Guaranteed completely trivial" - 8000 Plus.

HIGH LEVEL LANGUAGES

NEVADA COBOL COMPILER £39.95
COBOL is an industry standard data processing language, suitable for business applications. Based on ANSI-1974 Standard COBOL, Nevada features runtime error messages, random access and sequential files and integration of assembly language using the DR MAC assembler.

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NEVADA FORTRAN COMPILER £33.95
Adheres closely to the ANSI x3.9-1966 standard with some 1977 extensions. Advance features include THEN, ELSE, COPY, CHAINING and TRACE. With two-pass assembler, random I/O file, 25 general purpose subroutine/function library and runtime error reports. No linking.

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HISOFT C COMPILER Popular compiler with E800 editor	£44.95
HISOFT ZBASIC COMPILER The only Basic compiler for PCW	£64.95
HISOFT MODULA-2 COMPILER Powerful implementation	£49.95
HISOFT PASCAL 80 Well-known compiler with E800 editor	£44.95
HISOFT FORTH Interesting compiler with ED 800 editor	£24.95
HISOFT DEVPAC 80 V2 Complete Z80 Assembler with ED80	£44.95

'Are you sure?' to which the reply was 'Yes'. It also predicted this year's Derby winner and I won £20." The spirits, however, do not take kindly to their advice being used for direct financial gain. It is also unfeasible for just anyone to use the program. "There are only certain people who can talk to spirits. A journalist came down to have a look at the program, and she asked if she could type her questions into the computer. I asked the contact, who said 'No'. I had to ask the questions for her."

Ken is, however, considering turning his discovery into a commercial venture – but not to predict race results or pools combinations. "I spend most of my time helping my friends to learn more about themselves through my psychic powers" he explained. "I would like to expand it to encompass more people by turning it into a business. I have also been writing down all the conversations which I have had – they are fascinating to read and would make an excellent book. At the moment I consider myself as a sort of psychic social worker who is overworked and underpaid!" So what is standing in the way of Ken's commercial plans? "Capital and business expertise" he replied, "of which I have neither."

Watch this space for any further spooky developments; perhaps Ken's PCW will itself turn psychic and be able to talk to corrupted data languishing in the great limbo file in the sky...

System addict

Digita International, specialists in home and small business accounts packages such as DG Payroll and Business Controller, have released the PCW version of their popular accounts package, System 3. The software was developed on the same principle as Database Software's Mini Office, in that it comprises a suite of three programs, written specifically for the PCW, which may be used independently, or integrated as necessary. The invoicing element can be used to produce invoices, statements and VAT summaries, while the stock control program offers inventory, stock valuation and price list facilities. A cashflow controller makes up the complete system, which is aimed at the home or office user. Said Digita's Jeremy Rhyll "The other versions of System 3, particularly for machines like the Atari ST, have been immensely popular. This is an important release for the PCW, and we are expecting the same kind of response." System 3 costs £49.95, and is available soon from Digita International (telephone 0395 268893). We will be reviewing it in the near future.

On the move (I)

Industry efforts to make computing a totally mobile pursuit never cease to expand. Only recently, the Plussers were convulsed with laughter at the sight of Paul Stephens, Editor of our sister magazine *PC Plus*, wandering around the building with – wait for it – a wrist top computer strapped to his arm. The Husky Hunter 16 measures 8.5" by 6.2", and is fine if you are right-handed (the keypad is on the far right of the machine, so left handed folk will have an interesting time tickling the crook of their elbows while trying to get the hang of the positioning). However, the likelihood of being laughed out of the bus queue will probably outweigh that of your ever using it in the manner for which it was designed. Of course, the wrist top location is not compulsory; the machine can be used anywhere about your anatomy which you choose (as long as the

strap fits around it...) or as a desktop, complete with a portable disc drive. Its serial port means that it can be used in conjunction with the PCW, with the relevant interfacing. How long will it be before the first fingertip-top mainframe system is released?



Would you be seen with this strapped to your wrist? Husky think you will...

On the move (II)

If you've been following our recent reviews of the PCW-compatible portable computers, the Atari Portfolio and Microwriter's Agenda, you will be aware of just how useful it is to turn time-wasting train journeys into productive working hours. Now it seems that not only can you use your time to prepare work while you are on the move, you can also print it out as well. Canon have announced the release of their new PCW compatible BJ-10e 'bubblejet' printer, the first personal printer that is a desktop and a portable unit. The BJ-10e is the size of an A4 pad, and weighs only 4lbs.

There is no compromise on quality; the bubble-jet print is reputed to be of near laser print standard. The technology itself was discovered accidentally, by the contact of a soldering iron with an ink filled syringe. Thus on the print head itself, there is a small electric heating element on top of each of the 64 nozzles, which heats the ink inside and causes it to evaporate into a bubble which then forces a drop of ink out on to the page. Although this sounds like a laborious and complicated process, the rate at which ink jets can be generated goes into thousands per second. The production of graphics and text, at a maximum of 360 dpi (dots per inch) is far superior to that which the PCW packaged printers – dot matrix for the 8000 series and daisy wheel for the 9512 – can achieve.

Maintenance for the standard PCW printers can often be a nuisance,

with the risk of the component parts such as the printer head, the ribbon and the roller developing faults. Canon's new product uses a cartridge which contains both the print head and the ink supply. It has a lifetime of 700,000 characters if used for high quality print, or 1,400,000 in economy mode. Each cartridge costs £19.99, and can be fitted as easily as a replacement ribbon on a dot matrix printer.

The BJ-10e bubblejet printer is due for release in September, and 8000 Plus will be putting it through its paces around that time. When we received details of this revolutionary new piece of equipment, we were amazed at the budget price of £45. The very next day, however, brought an urgent message from Canon that there was, in fact, a small yet highly significant '3' to put in front of the misprinted figure.

Forever blowing bubbles; the Canon BJ-10e portable – yes, portable, printer





Who is this man?

Well he looks like a zany fellow and by golly he is. Mad Mel Croucher warns that 'nothing and no one are safe' when it comes to dishing out his acerbic wit via a British Telecom 0898 Computer Fun Line, recently set up. Mel's picture is enough to indicate that he wants his head read, so 8000 Plus dialled the number to tune in to some of his side-splitting humour. Our sides are still perfectly intact.

JEM update

After several weeks of speculation, it has been confirmed that JEM Computers, erstwhile advertisers in 8000 Plus, have gone into liquidation. If you have placed an order using a bank charge card such as Access or Visa for goods worth £100 or more, your bank should be able to assist you in reclaiming your money. If you have ordered goods by any other means, and still not received either your purchase or a refund, you are advised to contact the liquidators who will take details of your claim and assist you where possible. The person to contact is Ian W Walton, of Coyne, Butterworth and Chalmers (Chartered Accountants). The address is 81, Fortuneswell, Portland, Dorset DT5 1LY, and he can be telephoned on 0305 821229. Meanwhile, 8000 Plus apologises for any inconvenience which our readers may have suffered. We try our utmost to ensure that the quality of our advertisers matches the quality of the magazine.

Art for art's sake

While you don't have to be Picasso to get the best out of Creative Technology's DTP workhorse MicroDesign 2, a little guidance upon the program's capabilities probably wouldn't go amiss. We reported in the April issue of 8000 Plus that a company called CTC (UK) Ltd (telephone 0202 299676) runs a professionally compiled weekend course on MicroDesign, based in Bournemouth at a cost of £150. More modestly priced help is now at hand in the form of Rod Patient, an experienced Microdesigner who will apply his knowledge of the program to your specific needs. For £80 per day, Mr Patient will offer tuition from his home in Harlow, but if you would prefer him to visit you at home, you must pay his travelling expenses as well. To find out more information, you can contact him at 195 Milwards, Harlow, Essex, telephone 0279 444313.

Cirtech

Cirtech, producers of the Diamond Hard disc, reviewed here in October of last year, have moved. Contact them now at Monksford Stables, Newtown St Boswells, Melrose, TD6 0RU, telephone 0835 23898.

CLUB NEWS

Club News is always glad to hear from anyone who runs, or is involved in, any organisation concerned with the PCW. Your club or group might be specifically aimed at the PCW, on the other hand it might merely use the machine to speed up and streamline the general club working. Whatever it is, if there is a PCW involved we would like to hear about it. If you would like to popularise, publicise and promulgate your club, group or organisation you should send details to Club News, 8000 Plus Magazine, Beauford Court, 30 Monmouth Street, Bath, BA1 2XF. We're sorry but because we are busy trying to produce the magazine we normally don't have the time for telephone calls.

Club News

As the M25 user club approaches its third birthday, Chairman Ken Ritchie informs us that all is going well. The Club meets twice a month; the first of the two sessions deals with program handling, where members will compare notes on LocoScript, Supercalc or MicroDesign, and the second of the two is devoted to CP/M. "We are currently looking at the idea of buying a club version of MicroDesign 2, which we are all very keen on at the moment. We are also concentrating on building up the membership" explained Ken Ritchie. "After all, new members mean new ideas and new expertise". So willing is Ken to welcome new members, he will even meet them at Perivale Tube Station on the Central Line and take them to one of the club meetings. "New membership is the lifeblood of any club, and since the first meeting is free anyway, I don't mind helping new people find us."

Ken acknowledges that setting up a user club can be a daunting prospect for some. "It seems like a difficult task, but you would be surprised how many people are willing to get together and give it a go." Ken has very kindly offered to send 8000 Plus a copy of the club's constitution, and any readers who are thinking of setting up a user club can contact us for a copy. For information about joining Ken and the M25 User group, either telephone the membership secretary Tony Brown on 081 841 3666, or write to Ken Ritchie at 5, Rib Vale, Hertford, SG14 3LE.

Talk to me

We announced several months ago that PCW World had launched a new disc format translation service, enabling data from Amstrad PCW 3 inch discs to be transferred to a plethora of diverse formats. Interest has been such that new equipment has been brought in to cope with increased public demand. Transfers can be made to the Apple Macintosh, IBM PC, Atari ST, and Hewlett Packard machines – the list is endless. In addition, data from any of these formats can be transferred back to 3" disc for use on the PCW. A service such as this means that the home user can prepare documents on the PCW, and have the data adapted for reading by, say, the office computer, which is likely to be a different machine. If you are thinking that the time span between submitting discs for transfer, and having them returned in a new format will be longer than is practical, rest assured, PCW World undertake to carry out transfers and send you the finished product by return of post in most cases. The service is far from costly; PCW owners are privy to a special price of £5.95 per disc, which covers data transfer, VAT, post and packing and insurance. Contact Gerry Austin of PCW World on 0384 66269 for further details.

Ink-lined to be of help

Meanwhile, Tom Burden of Leeds Polytechnic has come up with a helpful service for users of Hewlett Packard deskjet printers, (which have an Epson FX80 emulation so are supported by LocoScript 2's printer driver). "The cartridges can run out very quickly, especially if they are used to print graphics and DTP" explained Mr Burden. "Replacements cost £14 – £15, which is pretty costly." Burden has come up with a re-inking service which will cost you less than

half the price. One ribbon will cost you £7.50, but reductions are available for 'bulk' orders. Two or three ribbons will be re-inked for £6.00 each, and four or more will cost a mere £5.00 per ribbon. "I am hoping that I will be able to develop a cheaper way of replacing the cartridges for the new Canon bubblejet" (see 'On the move II', over the page) Tom told us. "I just need to persuade someone to lend me their new printer for a few days!" Telephone enquiries can be made to Mr Burden on 0532 782355, or ribbons can be sent straight in to Tom at 9, St Chad's Grove, Leeds, LS6 3PN.

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More 9512 for you

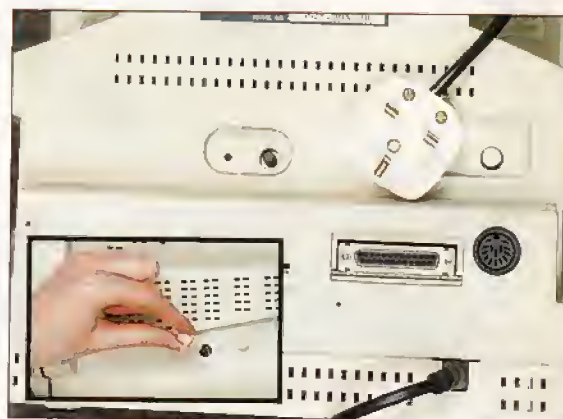
Get the boot

A problem which has been interesting 8000 series owners and software developers is the following; is it possible to boot (start-up) an 8256 or 8512 from the B: drive? The 9512 has to boot from a double density drive (it's all its got!) so why not the 8000 series? Well, the machines have very different architectures and, as far as we know, no one has yet come up with a B: drive booting 8000 series machine. Anyone got any bright ideas? The point of all this, by the way, is that once your A: drive breaks there's no way into your machine without buying a new one.

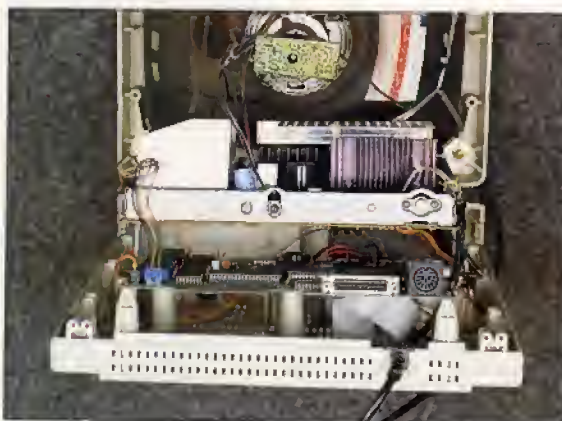
Just because the 9512 came out of its box with one built-in drive it doesn't mean that it has to stay that way. Tim Smith makes the upgrade



1 All electronic equipment stores residual voltage. This is especially true of computers. So, unless you have some strange power which enables you to store electricity, you should leave the 9512 switched off and unplugged overnight. Before going into it you should also earth yourself.



2 The 9512 is a secure beast. It comes with six retaining screws - cross head (Philips) variety. There are two on the side (towards the front), two on the base at the back and two on each side of the top of the machine. Remove these, as well as the contrast and brightness switches.



3 Once the screws are removed and stored you can take the back casing from the machine. Have a blanket or other non-scratch surface ready to lay the 9512 down on. You actually have to remove the front of the PCW from the body before you can reach the innards properly.



4 Once you have the casing off the machine this is what you will see. Have a sharp knife close to hand; a file could also be useful. You will need to prise off the front panel (it says PCW9512) and then remove the plastic security panel which guards the aperture for the new drive.

What's in a name?

The 8256 and 8512 are so called because they make use of the Z80 processor chip. The Z stands for Zilog and was developed by a large company called Intel. So, does the 9512 make use of a Z90? In a word no. There is no such thing. It's called the 9512 because Amstrad needed a number to follow 8.



5 On the side of the 9512 and towards the back you will see a thin black cable secured by a nut. You need to free this before you can pivot the front of the machine off. Make sure that you either keep the screw safe or tighten it without the cable connected.



6 There are more cables to deal with. They all need removing from the circuit boards so that the front will pivot off. A good rule is to remove them by way of the cable head and not the cable itself. Our Art Editor Jules demonstrates the wrong way to do it. She was told to!

The PCW 9512 came with a number of very big surprises for those people who had been used to dot matrix printers, small keyboards and single density (A: drive) discs. One of these shocks was the fact that the machine was bundled with one, lonely double density disc drive. While this gave a storage capacity of 780k, which seems a more than adequate amount, it did make the process of backing-up

files rather tedious. There was always massive amounts of disc swapping to be done.

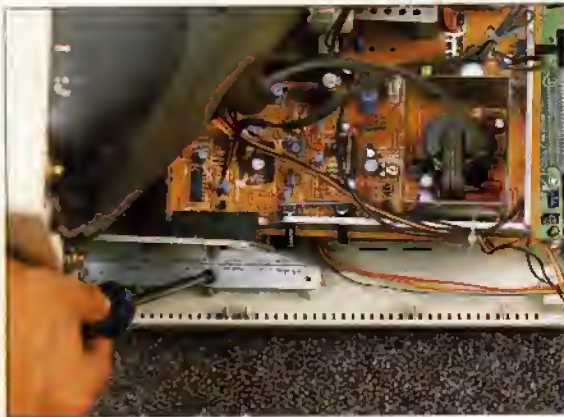
Lurking within the machine, however, is space, power and cabling for yet another drive. Fitting a new drive here would double the storage of the 9512 and cut down on disc swapping. It also means, with the new memory packs which have recently become available, that your Start of Day

procedure can make even more use of the machine. Using two drives, a RamPack and Flipper you could turn your PCW 9512 into a mighty computer which would put some upstart IBM PC clones to shame. 8000 Plus will now show you just how easy it is to fit a new double density drive and make your 9512 work even harder for you.

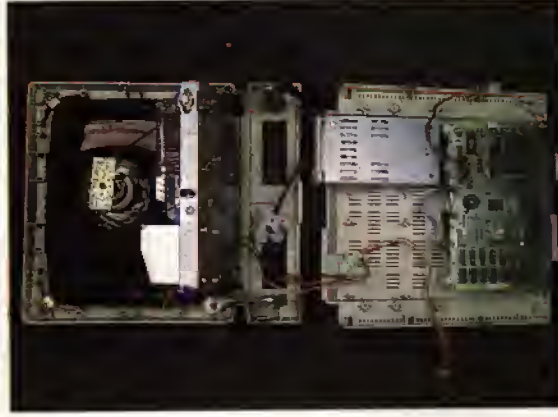
● Thanks to Silicon City for the drive (£112). Contact them on 0209 891141

By the power

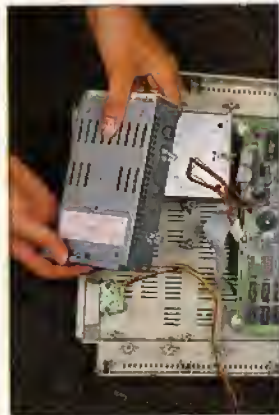
The black power cable at the back of your PCW will need to be fed through the machine in order to pivot the front off. The easiest way to do this is by loosening the lower of the two circuit boards. This has two small screws at the front. Remove these and slip the cable beneath the board after taking it from its resting place at the back of the 9512. Do remember to keep the screws safe as you will need to resecure the board at the end of the process after you have fed the power cable back.



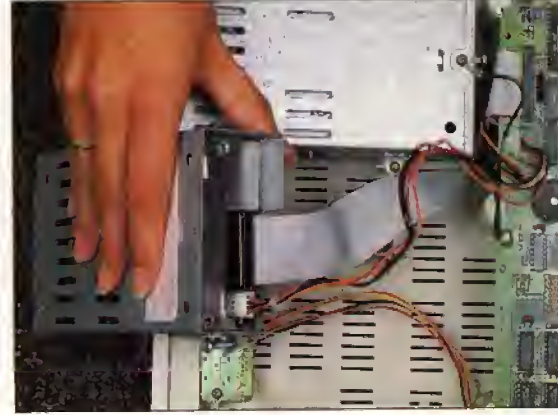
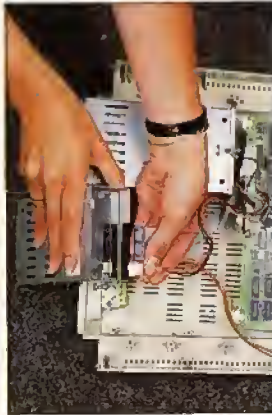
7 Once you have the cables removed you will need to free the front panel from the main body of the machine. There are four screws on each side of the front of the 9512 which need to be released and stored for later. Take care not to loosen the screws around the screen itself.



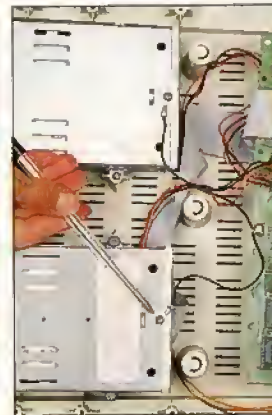
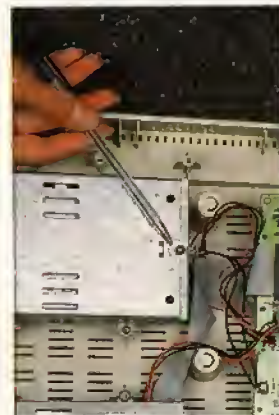
8 Once all the cables have been released you can remove the front from the body of the machine and lie them next to each other. You can then get a good look at the mounting for your new drive. This might also be a good time to remove the front panel and plastic guard flap.



9 Your new drive should now be unpacked. On the back of it is a small metal guard flap secured with one screw. Loosen it and remove the guard. This will need to be refitted later. The screw will secure both the guard and the earthing cable. Before that, ensure that the aperture is clean.



10 There are two cables, one ribbon (data carrier) and one multi-coloured (power lead) for the new drive. Snip the nylon band holding them. The back of your new drive has two sockets into which the cables fit. The red band on the ribbon cable must always be facing the power cable.



11 Now fit the guard plate to the back of the drive. Take either one of the black earth cables from the A: drive and connect this to the new drive. Tighten the screw and you're ready to secure the new B: drive to the mountings. You only have three screws for this, but that's quite enough.



12 When you've got the drive fitted to its moorings you're ready for the really irritating part which is refitting the front to the body of the machine and also the back of the 9512. Make sure all is secure. Load a start of day disc and off you go. Your 9512 should now proudly show two drives.

It won't work

When you have fitted the drive and switched on you would expect the A: drive light to come on and the machine to boot. If both lights come on at once then something has gone wrong. The most likely fault is that you have fitted the data handling ribbon cable the wrong way around. Remember, the red strip down the side of that cable must be facing the socket for the power cable. This means going through the whole process again.

One point to mention about the drive is that Silicon City's instructions were quite excellent. They tell you which cable is which and when it should be removed. 8000 Plus might be good but we doff our caps to the aid given by SC.

Variety Performance

Phil Craven goes bargain-spotting and shows you how to go about attaching non PCW-specific external drives to your machine

Remember when Amstrad launched the first PCWs onto a relatively unsuspecting nation with their impressive "get rid of your typewriter and buy all this great gear" TV campaign? We all dashed off to our local computer shop with our typewriters tucked neatly under one arm. The shops didn't want our typewriters but, undaunted, we staggered back again, proud as punch, clutching our shiny new PCWs under the other arm. Remember that? It was just before the first advertisements appeared to tell us that our 3" disc drives might not really be the bee's knees after all; our little hearts were suddenly thrown into turbulent disarray.

In those days we were offered the 5.25" drive as an alternative and, more recently, a number of 3.5" drives have been added to the range. We now know, of course, that the 3" version is in no way inferior to any other and that each size has its own particular merits which have been fully explored in our pages. In one way we are perhaps a little fortunate in that if we want the merits of a particular disc drive, we don't have too

many to choose from – unlike owners of PCs, Amigas or STs whose respective magazines contain a plethora of disc drive advertisements each purporting to be the best.

As PCW owners, we have been blessed with relatively easy choices. Until now, that is. For now I am going to explain why almost any disc drive can be made to work on all models of PCW. Why would you want to know this? Well, there are many new and used drives offered for sale in various magazines, auctions, sales – and other places – at prices so low that our wallets would positively leap out of our pockets if only they would work with our PCWs! But they are usually designed for other computers, or not even cabled up at all.

Do you take Shugart?

They may be cased, uncased, with or without a power supply, 5.25 inch, 3.5 inch, 3 inch, full, half, third or quarter height, single or double-sided, 80 track, 40 track or even 40/80 switchable. It sounds confusing, doesn't it? Without a little bit of prior knowledge, they would all appear to be absolutely worthless to

us. But, in fact, many of them would be more than suitable for us and it isn't difficult to find out which ones.

The first thing to realise is that almost all disc drives conform to the same interface standard and are, as far as your PCW is concerned, much of a muchness. Whether they be Teac, Hitachi or Citizen, they interface to the computer in an identical way. They may have differences such as 40 or 80 tracks and take different sizes of discs but, to us, they are the same.

Obviously then, none of the PCW alternative drives we see advertised on a regular basis are in fact PCW-specific. They are all standard drives which have special cables to allow them to connect to the PCW. Similarly, an Atari or PC drive is standard but has a special Atari or PC cable. The one thing which standardises them is the set of 34 signals (connections), known as the Shugart interface, by which they connect to a computer. Like most computers, the PCW implements this signal set; therefore most drives can be connected to it.

So standard is the Shugart interface that it is reasonably safe to assume an

THE CIRCUIT BOARD

Tandy circuit boards have copper rings around each hole making soldering to them very simple. Strip board is not ideal for this purpose since too many strips would need to be cut and the number of wire connections is not reduced. Slots may need to be cut in the 26-way female IDC connector to accommodate the bumps of the PCW's socket.

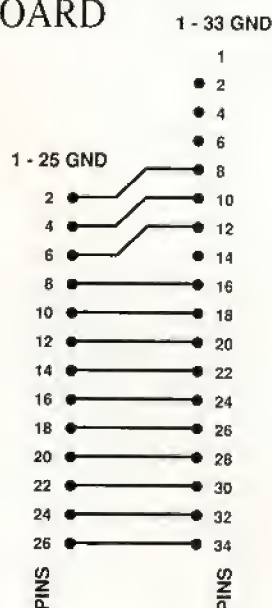


Diagram showing how the PCW's connector is wired to the disc drive

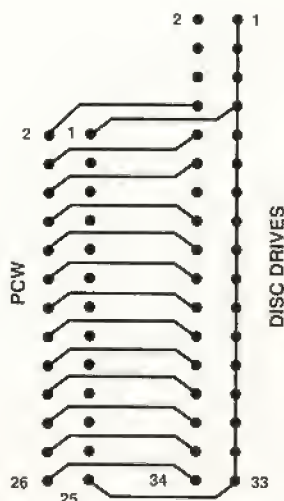
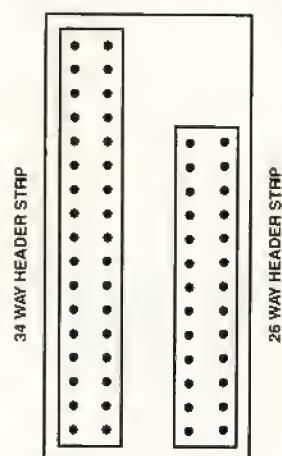


Diagram showing how the underside of the circuit board should be wired



Top view of circuit board with header strips in place

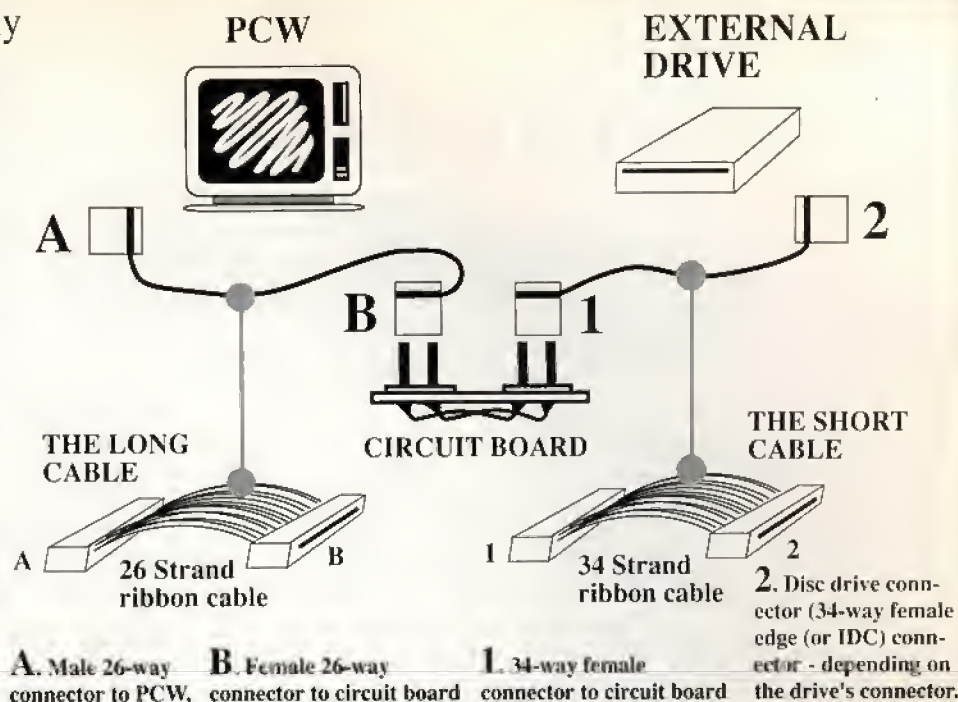


End view showing header strips on the top and wiring underneath

Complete cable assembly

Constructing the cable to connect the PCW to the disc drive - via the circuit board - is quite a simple task. You will need about 4 feet of 34-way, flat ribbon cable from which you make the long, 26-way cable (from the PCW to the circuit board) and the short cable (from the drive to the circuit board). You will need 2 34-way female IDC connectors, male and female 26-way IDC connectors, a small circuit board and some dual header strip. All the connectors must be cable-mounted. The circuit board needs only the header strips and wires, as shown in the diagram, soldering to it. A short, 2 inch piece of ribbon cable should be cut from the main length and the 34 way female IDC connector squeezed onto one end in a vice. The disc drive's connector is squeezed onto the other end. It can then be pushed onto the circuit board as shown.

The rest of the cable joins the circuit board to the PCW, but first 8 strands need to be removed leaving a long 26 way cable. A 26 way connector should be squeezed onto each end. The diagram shows this and it is important to put them on the sides of the cable as shown. It can then be pushed onto the board and the job is complete.



unknown disc drive to have it. However, there is one important thing to watch out for. Pin 34 of the drive's 34-way connector must be allocated to the 'Ready' signal. Many computers don't use it, but the PCW does. Some drives don't implement it and, without a modification, they will not work for us. Pin 34 is clearly marked on all drives and it should have a printed circuit track running from it. Not only that, but it should also go somewhere sensible. I once came across a promising drive with the said track running from pin 34 but, alas, it disappeared into a hole never to emerge again.

Getting on the right track

To put it simply, 40 tracks on one side of a disc will provide about 180K of storage space and 80 tracks will provide about 360K. The PCW 8000 series' A drive is a 40 track device with one head to read one side of the disc only. Hence, there are 169K free after formatting. A double headed drive has, funnily enough, one head for each side of the disc, making it unnecessary to turn the disc over to use the other side. So an 80 track, double-headed (or -sided) drive will provide about 720K of disc space and is the type which the PCW 9512 has for its A drive and which all 8000s have for the B drive. It is this type which we would be looking out for, so only an 80 track, double-sided drive is any use to us. 40/80 track switchable drives can have a special use (see last month's issue). It would also need to be a 1 megabyte drive rather than a 1.4 meg or higher. If the owner gets around 700K - 800K storage per disc, then the drive is eminently suitable.

Full, half, third and quarter heights only matter cosmetically. Since the arrival of the floppy disc in the computer world, they have become smaller and smaller; a one third height drive is likely to be newer than a half

height one, although it cannot be taken for granted.

Wired for action

Whether or not a drive has its own power supply is important. The PCW is able to supply power for 3" and 3.5" drives but it is not wise to try to run the larger 5.25" from it. In this case, it is better to buy one with its own power supply although separate power units can be found.

When you've found and bought your incredibly cheap disc drive and you try to fit it by following our recent step by step instructions, you will quickly notice one important thing. You don't have a cable! And even if you have, it is sure to be the wrong one. Inside your monitor are two spare connectors which normally connect to the internal B drive. One is a 26-way and carries all the Shugart signals the PCW needs. The other is the 4 way power connector.

All you have to do, via a 34-way flat ribbon cable and a small DIY circuit board, is connect the PCW's 26 signal lines correctly to the disc drive's 34. If your drive is small enough and doesn't have its own power supply, you will also need to connect the 4-way power connector. The diagram above shows you how.

Make the connection

One more little operation is needed. Your disc drive needs to know that it is to operate as the B drive and not the A. On its circuit board it has a set of links marked DS0 DS1 DS2 DS3 or 0 1 2 3 or 1 2 3 4 or even A B C D. They will be in a row, though not necessarily side by side, and one of them will already be linked. The drive number will be whichever link is made; for example, if DS0 is linked, the drive is number 0 or A. To make it the B drive, the second in the series must be linked - DS1. The rest, of course must not be linked. Some

3.5" drives have a 4 position slide switch instead of the links, with four clearly marked positions. Either way, the second position or link must be selected.

Fitting the drive to the PCW is very simple (see June issue) but one or two points should be noted. If the PCW's power is used, be careful to connect it correctly. Wrong connections can result in damaging the drive. Many drives have protection in case this happens but it cannot be assumed to exist.

If the signal cable is fitted the wrong way round, then the drive will not operate. But no harm will come to either the drive or the computer. When powered up, the message 2 disc drives found will appear on screen; the A drive will function as normal, but the B drive will dig its heels in and refuse to budge. The solution is to turn everything off, turn the cable over and begin again. All those drives which have their own power supply should be switched on before the computer.

PCW power-house

If you have a 3 or 3.5 inch drive and you are going to make use of the PCW's power then make sure that you connect the right voltages to the right pins. You can do this by measuring the voltages on the PCW's 4-way connector with a multimeter. They are 12v, 0v, 0v, and 5v - in that order. Mark the 12 volt line so that there is no error. Disc drives are standard in the way their power connectors are mounted; the 12 volt pin is always the closest to the corner of the printed circuit and the 5-volt pin nearest to the centre. The two 0 volt lines are between them.

The spare eight strands of the long cable could be pressed into service for power. In fact they wouldn't even need to be cut off. Three strands could carry 12 volts, three could carry 0 volts and two could carry 5 volts. ●

Sources and contacts

So where are all these lovely low cost disc drives to be found? Computer auctions are one very good source if you have the time to attend them. Radio ham sales, similar to car boot sales, are excellent places too and prices can be incredibly low; probably the best sources are such computer magazines as New Computer Express and Micro Computer Mart. They cater for all computers and often carry both private and trade ads for new uncabled and/or uncased drives at very good prices. Now that you have all the information you need, you could happily negotiate for a used Amiga drive, for instance, knowing that the mechanism is standard and you can easily construct the cable. It is best to steer clear of drives for the BBC computer. Since the BBC does not need the 'ready' signal on pin 34, drives which don't implement it are sometimes used.

THERE ARE SEVERAL DATABASES FOR THE PCW



But only one for LocoScript 2

LocoFile is the easy-to-use, pop-up database that works within LocoScript 2.

You can use it just like a card index; there's a separate card for each page of information. You can design the layout of the cards to suit your needs and you can change the number and order of the items in your cards at any time.

LocoFile is ideal for storing any type of information from membership records to your personal address book. You can then sort these cards in any order you wish – by name, by town, or by any item on the card.

When you're typing a letter, simply call up LocoFile and copy names and addresses straight into your document – you never need to type an address again!

And LocoFile can do a great deal more when you use it with LocoMail - the mail merge program. LocoMail lets you create standard letters merged with LocoFile information to produce mailshots, detailed reports and labels.

For more information on LocoFile or any of the LocoScript family, please complete the coupon or turn to page 20 for a list of Locomotive Software Authorised Dealers.

Please send me further information on
LocoFile and the LocoScript family

Name _____

Address _____

_____ Postcode _____

I have a PCW (please tick the correct box)

☐

8256

☐

8512

☐

9512

Please return to Katy Buchan at:



**LOCOMOTIVE
SOFTWARE**

Dorking, Surrey
RH4 1YL. (0306) 740606

Get it together!

In the last of the Masterfile series, Rob Ainsley covers file transfer with LocoScript, mail-merging and much much more

With Masterfile you can import and export your data – which means essentially that you can use Masterfile data in other programs and vice-versa. Suppose you keep a list of club members or customer addresses on a Masterfile database; you can export the data into LocoScript and have the name and address list appear in a LocoScript (or Protext) file at the touch of a button – no tedious retyping! Similarly, if you have a name and address list in LocoScript, you can import this into Masterfile and have a database instantly set up. (Though unlike Britain, you'll be exporting far more than you import).

Here's an example. Load up the example file X05ADDR.MFC from your Masterfile copy disc. It contains a few names and addresses with telephone numbers. (Press [D] for Display to have a look at it). Say you want this list 'typed' for you into a LocoScript file. (If you select certain ones first, only that selection will be exported).

From the main menu press [L] for Load/Save then [E] for Export. You see the format zero on screen showing all the fields and are asked to Give data number. If you wanted the list to be in the order address-telephone number-name, you'd type 2 [ENTER] then 3 [ENTER] then 1 [ENTER] then [ENTER]. If you wanted just the name and address, you'd type 1 [ENTER] then 2 [ENTER] then [ENTER]. If you want all the items in the same order as they appear, just press [ENTER] first off.

Now you're asked a series of questions:

Data identifiers (Y/N)?

You usually answer [N] to this. If you answer [Y] yes, you'll find that all the first field items (names) are prefixed by a &A, all the second (addresses) by &B, the third (phone numbers) by &C, the fourth by &D (not applicable here) and so on. It sounds useless, but actually can be vital for LocoMail users. Answer N unless you want to use the file as a data file in LocoMail or LocoFile, in which case enter Y.

Surname Shuffle (Y/N)?

This makes names entered as Smith<John come out as John Smith. Enter Y if you're exporting to LocoScript or Protext.

Line breaks: B=blank C=split

other=n/c

Your addresses are normally entered as 1 High St Hull or whatever, with that underscore character splitting lines on printout. If you press [B] here, the above line would come out as

1 High St Hull whereas [C] will make it 1 High St
Hull

and anything else will make it 1 High St_Hull. You should press [C] if you're exporting to LocoScript or Protext.

Comma delimited (Y/N)?

Answering [Y] gives you

John Smith,1 High St_Hull,0482 577363,M Green,6 The Parkway... and so on, whereas [N] gives you

John Smith
1 High St_Hull
0482 577363

M Green ... and so on. Press [N] unless you work with Protext, set up for comma delimited data files.

Wrapped in quotes (Y/N)?

Answering Y you'll get John Smith coming out as "John Smith" whereas [N] makes it John Smith. Unless you work with Protext set up for data files wrapped in quotes like this, press [N].

Record separators (Y/N)?

[Y] puts a blank line between records; [N] does not. [Y] is usually the best bet.

Next you're asked for a name that will hold the exported

list. Insert the disc that is to hold the exported file, give a name (say ADDS) and [ENTER]. To insert the resulting list into a LocoScript document, run up LocoScript and insert the disc with the exported file. Create a new empty document and while editing it press [f1] Insert text (or [f7] in LocoScript 1). Move

the cursor over the file that holds the exported data (ADDS or whatever) and [ENTER] twice. You now see the information that was in the database typed in for you. Save the new file; there you have it.

In Protext, you can just edit the file ADDS straight off.

Deeper waters

Unfortunately things aren't quite that simple. The list has probably come across in a slightly unsuitable format for your purposes. You need to polish it up before you can use it.

If you want to print the names and addresses as labels (having set up the Loco document to label format first, of course) you must have a new page between each name. If you answered Y to Record separators, your problems are over: just press [EXCH] and give [RETURN] [RETURN] as the text to find, [ALT] [RETURN] as the text to replace it with, and select automatic exchange to end of document. This makes all blank lines into new page commands.

But if you want to make a

Designer labels

Masterfile can print labels: X05ADDR.MFC already has a label set-up in it. Have a look at format 1 (by getting to the main menu, pressing [F] for Format, then [V] for View, then 1). Printer settings give infinite forms depth and six lines per inch. This format was set up with a 'Screen Geometry' of a box nine lines deep, which ensures the right spacing on one and a half inch (i.e. nine line) labels. When you set yours up, don't put any heading lines in; this one has some at the top.



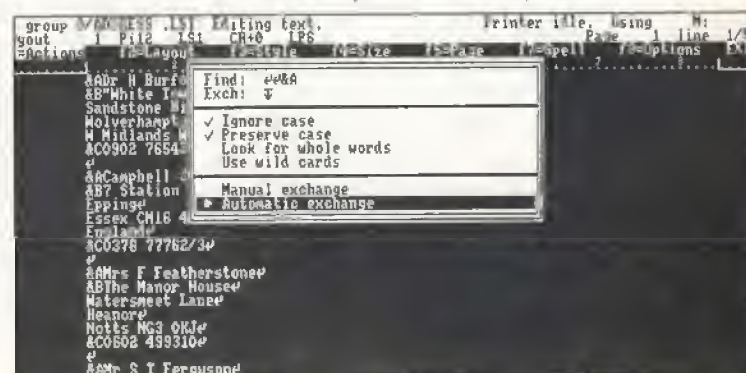
From Masterfile to LocoScript ...

Summary of Names

Name	Telephone	Address
Dr H Burford	0902 76543	"White Towers" Sandstone Hill Wolverhampton
Campbell Systems	0378 77762/3	7 Station Road Epping Essex CM16 4HA Englan
Mrs F Featherstone	0602 439310	The Manor House Watersmeet Lane Heanor Nott
Mr S T Ferguson	0493 45661	68 Station Way Ferndown Gt Yarmouth Norfolk
James Kelly	---	11 Sussex Gardens Croydon Surrey CR22 5EU
Mr W Larksfoot	0272 38993	8 Cheltenham Gardens Bristol BS11 099
H A Patterson	---	4 Gladstone Terrace Scotswood Glasgow G14 2
Zimmerman & Klein	01-355 9785	203 Hayes Crescent Golders Green London NW8

That X05ADDR.MFC file contains a list of names and addresses.

Note the use of the fancy lines. These can be exported...



...and inserted into a LocoScript file. This one said 'Yes' to 'Data identifiers' when exporting, giving the &A and &B and &Cs. Judicious use of [EXCH] on these...

LocoMail or LocoFile data file of the new list, you need a bit more fiddling about. Let's assume the first page of the LocoMail/File file – the one that tells LocoMail/File how to interpret the list that follows – is like this:

name
address:tel no
(new page)

If you have answered **Y** to **Data identifiers**, you can do three exchanges (remember to go back to the beginning of the document before stage 2 and stage 3 below):

1. [EXCH] all [RETURN] [RETURN] & A by [ALT] [RETURN]

This puts the required new page between each record.

2. [EXCH] all & B for nothing.

This strips out all the &Bs

3. [EXCH] all [RETURN]&C for ;

This puts a semi-colon at the end of the address. However many lines it had in Masterfile, LocoMail/File will now know where it ends.

The result can now be used in LocoMail or LocoFile – saves a lot of re-typing.

Balance of payments

So what about the converse – putting that LocoMail file into Masterfile, for example? (LocoFile to Masterfile is a bit trickier – see "Tipoffs" in this issue).

Suppose you have a name-address-

telephone list set out as

name
address:tel no
(new page)

Things are a bit complicated, because Masterfile can't just be told 'the address is the thing up to the semi-colon'. First you have to make the file into a form that Masterfile can import – essentially you must reverse the three steps outlined in the previous section. So:

1. [EXCH] all [RETURN]s for an underline character (which is [SHIFT] hyphen).

2. [EXCH] all semi-colons (;) for [RETURN]

3. Put a line break between the names and addresses – sorry, you'll have to do this manually!

4. [EXCH] all [ALT] [RETURN] for [RETURN] [RETURN]

Now save the new file as ADDS or something. At the disc manager, press [F1] for **Make ASCII file** ([F7] in LocoScript 1) and give ADDS as the file to be made into ASCII and ADDS.MF say as the name for the result. Select the **Simple text** option. Make sure ADDS.MF is in group 0 of the disc.

To insert into a Masterfile file, run up Masterfile and create a new address file (or load up an existing one) which must have at least three fields, the first three being **Name**, **Address** and

Telephone. From the main menu press [L] for **Load/Save** and then press [I] for **Import-merge**. Insert the disc with ADDS.MF on it and give that name. You see the message **importing** and the number of records increasing as the data is imported. Next time you view the file you should see the new items incorporated. If you import a file with say three fields into one with seven, the last four in each record are taken to be blank. You can't import a file that has more fields than the one into which it is inserted.

Invisible earnings

You can export and then re-import a data file in Masterfile – very useful if you want to change the setup of a file. Suppose you started off with the name as the key field of your club member list, but now want the membership number as the key. At the moment it looks like:

Name
Address
Mem no
but you want it as
Mem no
Name
Address

You export the file, but giving the membership number, 3, as the first field, then 1 as the second, and 3 as the third. Export it giving **N** for every option, and calling it say MEMBERS.EXP. Then set up a new file set out with **Mem no** as the key field, import MEMBERS.EXP, and there you have it.

Another use for this trick is when you need extra fields. Suppose, for example, you have set up a simple name-address-phone database, like X05ADDR.MFC, and realise as you're typing in the names that you also need the age of each person. Export the file, giving [ENTER] to include all the fields and then **N** for all the options, and call the result TEMP. Then set up a new database with four fields; name, address, phone and age. Press [L] for **Load/Save**, [I] for **Import**, give the name TEMP as the file to import and your database has been expanded.

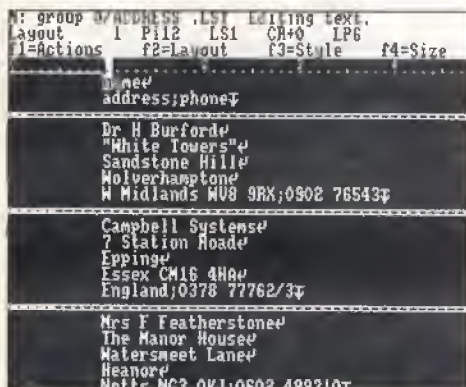
Format tricks

Finally, Masterfile lets you indulge your artistic leanings by putting in fancy boxes, lines and panels in your formats, as in the many formats in Masterfile's example files. These don't print out but can liven up screen data. You insert them as other elements, by pressing I when making a format. Then you have the following options. [B] inserts an outline box and [P] a solid panel. Your further options are to move it with [M], change the size with [S]. [A] draws lines across and [V] lines down. Your further options for lines are [P] for 'pattern' (pressing [P] cycles between bright, medium and dark lines) [L] for length, how many ([N]), spacing ([S] plus cursor increases or decreases the space apart) and move ([M]). When you've finished an operation, hit [ENTER]. ●

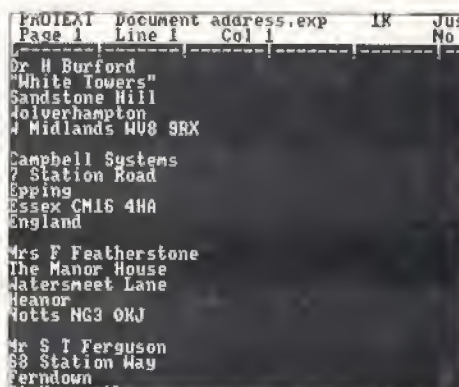
Good shot

You can set up a 'mailshot' format in Masterfile with slots for the name and address of recipient. When you print out in this format, you print out a letter for each person currently selected. You're restricted to letters of 28 lines or less (one screenful) and each line of text in the letter has to be typed in separately as a heading, so it's best for short notes and memos. If on single sheet paper, set up the printer to expect paper of 'forms depth' 50 (if you give anything bigger than 56, you'll get two letters to one sheet of A4).

... and into Protex, too

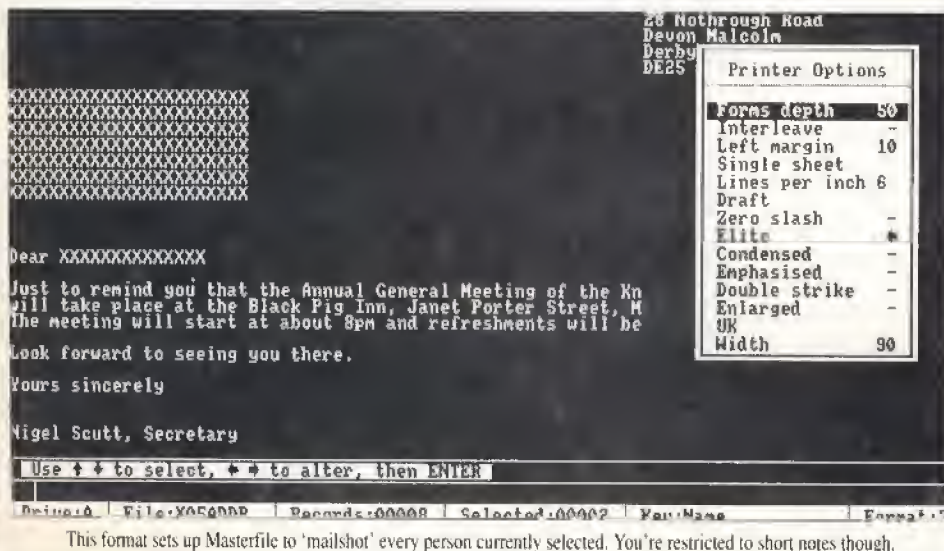


...turns it into a bona fide LocoMail or LocoFile file.



The same address file, but in Protex you can edit it directly.

This one said 'No' to 'Data identifiers'.



This format sets up Masterfile to 'mailshot' every person currently selected. You're restricted to short notes though.

LocoScript

NOW FOR THE PC[†]

If you have used LocoScript on the Amstrad PCW, you'll find *LocoScript PC* very familiar but faster and more powerful!

LocoScript PC is not only a word processor but also includes a quick and easy to use **database** for storing all types of information. The **mail merge** and **report writing** facilities allow you to prepare mailshots, invoices, detailed reports and labels from information stored in the database.

There is a **spelling checker** with an 80,000 word dictionary and **word count**.

You can use over 300 models of printers with *LocoScript PC* from the least expensive dot-matrix to sophisticated laser printers. *LocoScript PC* comes with a **complete set of user guides** including an installation guide, a step-by-step tutorial, and a comprehensive reference guide, as well as a book with details of all the printers *LocoScript PC* supports.

LocoScript PC also has all of LocoScript's multi-lingual features and allows you to prepare documents in **every European language** – even Greek and Cyrillic!^{††}

It's easy to **transfer documents and datafiles** from a PCW to a PC with **LocoLink**, a specially developed cable and software.

Buy *LocoLink* and you can then use your old LocoScript documents on a PC.

LocoScript PC includes all the PCW programs you are familiar with (LocoFile, LocoMail and LocoSpell) and still **costs only £125 + VAT** from any Authorised Dealer.

Until 31 August PCW users can buy *LocoScript PC* for **only £99 + VAT, saving over £25!** Just prove you use a PCW by quoting the serial number or take along the LocoScript PCW master disc.

Any Authorised Dealer will be happy to demonstrate *LocoScript PC* to you.

Turn to page 20 for the name of your nearest dealer.



[†]*LocoScript PC* runs on any IBM PC compatible with at least 512K RAM, DOS v2.1 or later and one floppy disc drive. All standard display adapters are supported and both 5¼" and 3½" discs are supplied in the package.

^{††}Special characters require a graphics adapter and a suitable 24 pin printer.



**LOCOMOTIVE
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FROM LOCOMOTIVE SOFTWARE – THE CREATORS OF LOCOSCRIPT ON YOUR PCW

Meet Mad Fax

Postman PCW and its grey and black fax? Tim Smith reviews the new, low-cost, all-singing, all-dancing Amstrad FX9600T fax machine.



The Amstrad FX9600T fax machine. A jack of all trades but is it also a master of none?

AMSTRAD FX9600T FAX MACHINE

£689 • Amstrad • 0279 454555

Right, we'll get this straight from the start; fax machines are incredibly useful, easy to use and, for the most part, they are extremely expensive. The next thing to agree upon here is that no yuppie jokes will be cracked ... AK? Back in October of last year, Amstrad announced the launch of their first fax (or to put it pedantically, facsimile) machine. Not only would it enable you to send and receive text and pictures, it would also interface (connect) with your computer. We waited and waited, anticipating its built-in photocopying, printer and other, programmable, features. Finally, a grey plastic box, the size of a 24 pin printer, arrived.

The FX9600T is a typical Amstrad product; cheaper than its competitors (in the world of the fax you can expect to pay anything from £800 to £2000) and bursting with features. A normal, run of the mill fax machine serves a simple purpose; to send and receive text and graphics over the telephone lines.

In order to achieve these feats, the machine takes hard copy (printed) information and encodes it in such a way that it can be transmitted over the wires. It then decodes the same data and provides a hard copy facsimile of the original document. Far from being a frivolous luxury, this ability to send and receive written or graphic matter quickly provides anyone, from a travelling salesperson to a university lecturer,

with the ability to access information quickly and efficiently.

Ready, handset, go!

Now for the machine itself. When you first open the box, you will find the fax itself (prepare your desktop for a minor shock as you will need to clear as much space as you would for the PCW itself). You will also find a polythene wrapped telephone handset dangling down from the body of the machine.

Most users of fax machines will find the idea of a handset quite quaint. The reason for this being that, in the office where these machines are most commonly found, there are dedicated fax lines and most faxes come with numeric keypads built on. The FX9600T, however, is aimed at the small business or possibly even the home user. These two areas of use require a little more thought as there might be only one telephone line available. Consequently, the addition of a handset enables the line to be used for voice communications as well as for fax transmissions. Handy really.

The idea, as with most things Amstrad, is excellent and will be a boon to many people. The execution, however, leaves quite a lot to be desired. The handset is too slim; it has to fit flush with the casing of the machine, which makes it uncomfortable to use (unless you happen to have tiny ears). The fact that the mouth and earpieces are almost, but not quite, the right distance apart and that the unit feels over heavy turns a great idea into a bit of a pain.

To the right of the handset is a small, black, pinwheel which nestles by the side of the LCD (liquid crystal display). The pinwheel controls the screen contrast. The screen provides a mass of information from the time and date to the number you are dialling to details of the programmable features.

Below the LCD are three 'soft-keys'; these are used to 'program' the fax with such information as the Character Set you are using (Epson for the PCW please, although there are also two IBM settings), which Language Set, and other details like accessing your list of telephone numbers and printing out "Activity Reports".

Fax a lot

Once you have these you are ready for

the off. As a standard fax machine, the FX9600T does its job adequately and with little fuss. It does, however, lack two facilities which many (expensive) dedicated faxes have: the first is Polling, a method by which one fax calls several others and prompts them to send documents which have been set up for transmission. The second is Broadcasting; this is simply the ability to send one document to several other machines automatically (without having to dial for each machine). As we have already mentioned, it is possible to connect to the British Telecom (or Mercury) line which you would normally use for voice communications.

If you do so, the voice has precedence over the fax at all times. Receiving faxed mail is simplicity itself. There are two modes available in the form of manual and automatic. You will probably find that the latter becomes the most used function purely because it needs less input from the user. As its name suggests, the automatic facility answers all incoming calls as if they were faxes.

The phone will ring twice and will then be answered with a high-pitched facsimile scream. Using the manual system entails having to press the fax start/stop button when you want to receive, but it does save unsuspecting callers from the ear-splitting screech.

Fax transmission is a little more complex if only because the range of options open to you is extremely wide. Using the FX9600T as a standard fax machine allows you to store phone numbers so that they can be recalled at the touch of a button – or even by the keying of two digits. The hands-off function allows dialling to be carried out without recourse to the uncomfortable handset, but the really impressive features relate to the quality of document which you are able to send.

This is where the Fine and HalfTone keys come in. While the manual advises you to experiment with the halfTone facilities (it is woollier than Larry the Lamb in a sheepskin jacket when it comes to defining the difference between halfTone 1 and halfTone 2) both the halfTones definitely add to the quality of output. The Fine option will also preserve details. The only problem here, and it is not the fault of the machine, is that the receiving device has

It's a con

When creating halftone images only a single colour ink (normally black) is used. With a machine such as the FX9600T, the ink is shot at the paper as dots of differing sizes. Any shades or greys are created by using different percentages of dot size when the ink hits the paper. A full black is 100% black, while a white is achieved by using 0% black (in effect there is only white paper showing through). So, several thousand shades can be built up by using different percentages.

What you think you see as grey inks being used with black, is really a single ink being broken up. Try looking closely at a photograph from one of the national newspapers (or even The Sun) and you'll get the picture.

to be capable of dealing with halftoned images. Unless you are sure about the fax at the other end of the line, it is best to stick with halftone off.

A PCW's story

You will be pleased to know that your PCW, with its interface and cable fitted, does not merely sit around looking pretty. It has a number of roles to play. Firstly, and most importantly, you can create a message document in LocoScript or Protext and instead of having to produce hard copy (a printed sheet) you merely set the fax to Online and Text, tell the PCW that its printer now derives from the parallel port and print the document. The Text light on the FX9600T will flash confirming that the data has been received and is ready to send. You then dial the number and the message is sent. No paper involved here at all.

Although your PCW and the FX9600T can communicate quite happily with each other, it is a sad fact that the FX9600T was designed for PC rather than PCW compatibility. This means that a small program has to be written in order to make use of one of the functions built in to the fax; it is theoretically possible to create a list of your most commonly used telephone numbers (in the form of name, voice number and fax number), using a word processor and then transfer these details over to the FX9600T. This ability to create and transfer telephone details from the PCW to the fax is a most useful one.

Copier cat

One function which we have mentioned in passing is photocopying. The

BUTTON IT, PAL

To the right of the LCD you can see a large, grey pad – this is the fax Start/Stop button used when the machine is in manual mode.

Below this is a slim Reset key. Further to the right is the numeric dial/keypad. Below that you will find a rank of soft (squidgy actually) blue keys which control the various modes under which the fax can operate. They are, from left to right, Auto (for automatic reception of messages), On-line (this is used to set the fax as a printer for your PCW), Text (use this when you want to send a pre-prepared piece of text directly from your PCW to the fax).

Then there's Fine (this sets a high resolution, for example, when sending detailed drawings), Halftone (used to give three halftone settings - Off, 1 and 2 when transmitting or copying), Copy (this turns the fax into a photocopier), Shortcode (this one turns those regularly used phone numbers into two digits), On Hook (this is for those occasions when you're busy with something and you need to



dial; with 'hands off' dialling, the handset stays on the hook and a microphone sets in), Redial (this is for making tea; no really, it's to redial the last number).

Beneath this lot are two further ranks of soft blue buttons. These act as a kind of keyboard used for entering header details such as the name of your company and the date. They are also used for the automatic dialling of stored 'phone numbers. That's the keys dealt with.

You will need two further pieces of equipment if you are thinking of connecting your PCW to the FX9600T; the first is an RS232 interface – these range in price from around £45 up to £70. Then you will need a parallel cable (costing around £10; you would have thought that Amstrad could have included one).

FX9600T is not content merely to sit around being a fax machine, it also doubles as a copier in incredibly simple style. All you need do is take your original document, feed it into the document tray as you would with a written fax document, and press the Copy key. As with most photocopying, it is advisable to use monochrome images for the best results; if you really have to use colour matter, then the ubiquitous halftones

come into play yet again (See 'It's a con' in the margin on the previous page).

One minor downside with this is that the FX9600T was designed as a fax machine and, as such, it has to use expensive thermal paper. This type of paper is slightly glossy and although the copied images are of excellent quality, the paper on which they appear is flimsy; it is also a bit of a pain to feed into the fax for transmission. Absurd as it sounds, you may well find yourself having to hunt down a true photocopier in order to copy your copy before sending it as a fax! However, for the price of the machine compared with what you would expect to lay out for a fully fledged photocopier, this whinge is easily overlooked.

Even if Amstrad did not think to include a parallel cable, they were able to include one roll of thermal paper and six batteries. The batteries are cunningly hidden in the polystyrene packing. Once you have discovered them you will need to upend the fax and fit them into a compartment on its underside. The batteries serve as a memory back-up for the details which you have programmed in. Without them, every time you switched off the machine you would lose the stored telephone numbers, fax header details and the fax signature (this is a handy utility which enables your signature to be automatically printed out on each fax you send).

In conclusion then, the Amstrad FX9600T serves its many purposes with, for the most part, ease. Because it has been set up as a Jack of all trades, it is obviously a master of none. But it will provide the small business or home user with several effective tools without breaking the bank. ●

YOU SEND ME

If you wish to use your PCW to prepare and send faxes you will need to carry out the following commands: in LocoScript 2 you should go to the Settings option and tell the PCW that the printer now works from the parallel port; save this to a SETTINGS.STD file. Using LocoScript it is a good idea to save your document file as plain text ASCII. Then simply print out the document; it will be sent to the fax. The same system is used if you want to use the FX9600T as a printer, except this time you should not have the Text key set to on.

Using Protext is even easier. Again, save a document as ASCII but this time simply enter the command PAR at the command line.

CP/M is slightly more complex. The first thing to do is to use DEVICE .COM in the following manner:

At the M> prompt you enter DEVICE and you will see the following

Physical Devices: I=Input, O=Output, S=Serial, X=Xon-Xoff
CRT NONE IO LPT NONE O SIO 9600 IOSX CEN NONE O

Current Assignments: CONIN: = CRT CONOUT: = CRT AUXIN: = SIO
AUXOUT: = SIO LST: = LPT

Enter new assignment or hit RETURN (you then enter) LST:=CEN and see

Physical Devices: I=Input, O=Output, S=Serial, X=Xon-Xoff
CRT NONE IO LPT NONE O SIO 9600 IOSX CEN NONE O

Current Assignments: CONIN: = CRT CONOUT: = CRT AUXIN: = SIO
AUXOUT: = SIO LST: = CEN

Once the printer output (LST:) has been directed to the parallel port all LPRINT commands in BASIC will go to that port. You can also send files from CP/M using PIP.COM like this:

PIP LST:=SENDFILE.DOC So, not only does the FX9600T act as a printer and a fax it also teaches you a little bit more about CP/M.

In your scanner-ties

The FX9600T comes with a five pin socket at the rear. This could be used to scan images for use in desktop publishing systems. We say 'could be used' because the manual says this of the facility, "At the time of going to print there are no suitable interface electronics commercially available. Amstrad do not intend to produce such an interface, but third parties may develop kits ...". Anyone out there with any bright ideas please let us know.

FX9600T Fax

Pluses

- ▲ Several useful functions
- ▲ Interfaces with the PCW
- ▲ Well priced

Minuses

- ▼ No parallel cable
- ▼ No Polling
- ▼ No Broadcasting
- ▼ Only uses thermal paper

Ease of use	4/5
Documentation	4/5
Features	5/5
Performance	5/5

8000 Plus
value verdict 18/20

ENGLAND

AVON

- Computer Support, Bristol 0272 277034
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Style Council

Sophie Lankenau shows you why you need never send drab, dull-looking documents out into the world - ever again

If you have recently made the break from typewriter to PCW you will probably be languishing in the ease with which your new machine allows you to work. With the help of LocoScript 2, the preparation of everyday written material is transformed into a simple task. Not only this, but the program can also turn your work into a visual feast on the finished page. The use of LocoScript 2's Style, Size and Set and Clear Menus enables you to dress text in a clean and professional way, making simple documents stand out from the crowd.

The Style menu allows you to impose details such as underlining, emboldening and italics to your work. All of these features will add extra definition to a document, be it a simple memo or a lengthy piece of writing such as a report. For our purposes, we are going to show how stylistic changes can be added to a press release giving details of a new product launch. This kind of 'enthusiastic' sales letter can rely heavily on visual impact to help draw attention to the information it contains. The tools which LocoScript offers to enhance the text you are preparing can be accessed by pressing [F3] for Style once you are in document editing mode.

Going in strike

First of all, we want to make the header **PRESS RELEASE** stand out as a title. Before you do this, you must ensure that the cursor is placed over the first character of the word you are going to 'style'. The [F3] drop down menu reveals several options, all of which can be imposed by carrying out the same simple procedure. The option **Double strike** is a good way to ensure that text is adequately highlighted. This simply means that each character is printed twice by the printer. So, select **Double Strike** by moving the cursor with the down arrow key, and press the [+] key to the left of the spacebar. As soon as you press [ENTER], the double strike effect is activated. Now move the cursor character by character (or word by word using [SHIFT][CHAR]) until you want the double strike effect to stop. The left hand edge of the cursor defines the parameters of the action you are imposing, so be sure to include the last of the full stops after the final occur-

rence of **RELEASE**.

Now call up the [F3] Style menu and 'de-select' the double strike option by pressing the [-] key to the right of the spacebar. Pressing [ENTER] returns you to the document.

We now want to give more visual impact to the product name itself. Go to the first character of the word **Plughole** and call up the Style menu once more. Select **Bold** by moving the cursor with the down arrow key and pressing [+]. Press [ENTER] and you are returned to the document. Move the cursor along the width of the product name, stopping it after the 'T' of **KIT**. Now go back to the style menu and 'deselect' the bold effect by highlighting the command and pressing [-].

It's code out there

Although we seem to be giving extra definition to parts of our document, the effects of our action are not visible on screen. Everything which we are asking LocoScript to do is being stored as a code, which will instruct the printer to behave in a certain way when reproducing the document on the finished page.

To ensure that the right instructions are being given, we can ask the program to show us the 'codes' we have inserted. Press [SHIFT][F7] to call up the [F8] Options menu. Highlight **Codes** and select it by pressing the [+] key. A touch of the [ENTER] key triggers the appearance of a series of very strange looking codes. Closer examination reveals that they do in fact bear a resemblance to the style commands which the program has received from you. (See screenshot 1)

These codes can be inserted into the document using another method. The [+] and [-] signs which precede each code correspond with two other drop down menus, which can be summoned by pressing those keys. The convenient give and take nature of LocoScript's short-cut menu is immediately made obvious; for what **Set** ([+]) can give to a document with the utmost ease, **Clear** ([-]) can take away.

A question of give and take

Summon the Set menu by pressing [+] to the left of the spacebar. The small time delay between pressing the key and seeing the menu appear can be appreci-

ated when the list of options staggers on to the screen - there are 25 of them. (See screenshot 2)

Each code contains either one or two capital letters; for example, **CEntre**, **SupErscript**, **ReVerse**. These refer to keystroke instructions (we will be looking at them later) which allow you to implement stylistic changes without having to call menus down.

To demonstrate the use of the Set and Clear menus in our document, we are going to go through and highlight the name of the company whose product is being announced. Placing the cursor at the start of the first occurrence of **Wonko**, press the [+] key and wait for the Set menu to appear.

Select **Bold** and return to the document by pressing [ENTER]. Work through the word, leaving the cursor to the right of the last character. Now call up the Clear menu. (which is identical to the Set menu) and select **Bold** once more.

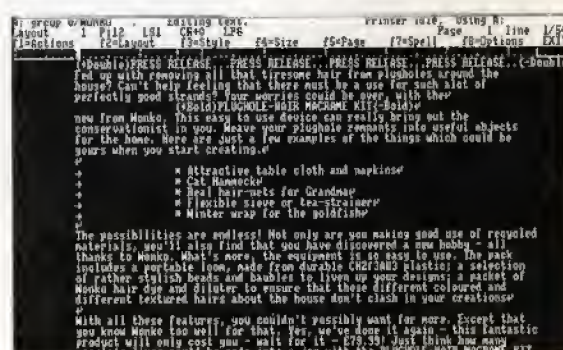
This time, when you go back to the

In the print

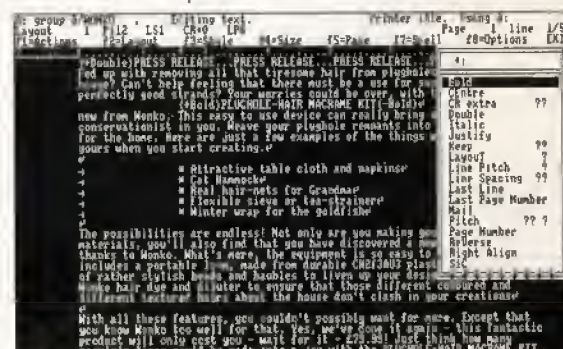
Adding a stylistic enhancement to a document rather depends upon your printer. For example, on some printers, there is no visible difference between the Double Strike and Bold commands when the work appears on the finished page.

Similarly, while the printers packaged with the PCWs 8256 and 8512 (the dot matrix printers) can handle most of the stylistic commands which you insert into a document, daisy wheel printers have to be equipped with indic wheels if you intend text to be italicised. The Reverse option is a screen rather than a printer command; it simply 'colours' the text black with the regulation PCW screen green as a background.

A touch of class



Once you have made some stylistic changes, call up the [F8] Options menu and select **Codes**. The top of our document now reveals bracketed commands



The Set and Clear menus have so many options that not all of them can fit into the space available. Press the cursor down arrow key to reveal the complete list

Foot ardur

As well as using SuB and SuperScript to produce chemical equations, the effect is also useful for footnoting text. Many literature students would still be in the dark if footnotes weren't around; Milton's Paradise Lost would never have been navigable if the little gems hadn't been invented!

document, moving the cursor back across the word undoes the emboldening imposed by the Set command. To speed up the process, the use of the keystrokes mentioned earlier can be undertaken.

Place the cursor at the beginning of the next occurrence of the word. The codes which are implied by the drop down menu commands (the obvious capital letters) might be difficult to remember at first, but [B] for Bold is, at least, a simple one to start with. Now, press the [+] key followed by [B]. Move the cursor to the end of the word, stopping after the last letter. Look to the top of the screen – the Bold command which you are carrying out is represented above the f4=Size heading.

To stop emboldening, simply press [-][B], and watch the top of screen

command disappear. To become familiar with this quick method of imposing stylistic variations, try italicising the list of product features by using [I][I] to start, and [-][I] to stop. If you need to check your actions, call up the [F8] menu and summon the Codes to the screen.

Lay it above the line

Among the various unfamiliar commands on the Set and Clear menus, you will see SuBscript and SuperScript. These are commands to place text above or below the normal line position, and are probably best exemplified in a chemical equation.

Our document happens to have one such equation which needs arranging in this fashion. The third paragraph contains a reference to the type of plastic used in Wonko's new product. Go to the figure 2 (after CH) and call up the Set menu by pressing [+]. The command we need is not visible on the screen, so keep pressing the down arrow key until it appears.

Select SuperScript and press [ENTER]. Back in the document, move the cursor to the 'f' and call up the Clear menu to deselect SuperScript (by highlighting it and pressing [ENTER] again). Now, go to the figure 3 and select SuBscript from the Set menu. Once the figure has been covered by the cursor, deselect the command using the Clear menu. To put the final figure 3 into SuperScript, we are going to use keystrokes to avoid having to call up the lengthy Set and Clear menus. Using the obvious capital letters, type in [I] SR when the cursor is on the 3. Move the cursor over to the right of the 3 and deselect the option by pressing [-]SR.

Now call up the [F8] menu and ask to see the state of the codes (by selecting Codes and pressing the spacebar or the [+] key. The screen will show a mass of bracketed codes which virtually obscure the actual text! (See screenshot 3)

LocoScript is not content to offer you just the range of enhancements demonstrated so far. There are other ways to highlight text, using alterations in character size and line spacing. Return the cursor to the top of the screen and press [F4] for Size to see what is available. Don't be put off by the host of figures, ticks, and terminology; the best way to explain and implement the size options is to work methodically through the menu.

Strength of character

If you have been following the World Cup Final, the first option might make you think of green things in Italy. However, character pitch refers to the size of the letters or figures on screen, and how many can be fitted to each horizontal inch on the line. Altering the pitch from the default setting of 12 (that is, 12 characters per inch) to say, 10, means that text can be 'stretched', while

changing it to 17 compresses the characters into a smaller space.

In our document, we want to make the product name still more noticeable. Move the cursor to the 'P' of **Plughole** and press [F4] for Size. Select 10 by moving the cursor arrow keys vertically and horizontally, and pressing [+] or the spacebar followed by [ENTER]. Go through the product name, and leaving the left hand edge of the cursor in the space after the 'T' of **KIT**, go back to the [F4] Size menu and return the character pitch to its default setting of 12.

The Normal or Double width settings are self-explanatory in that the latter option allows for characters to be printed at exactly twice their normal width – another useful feature for extra definition.

The Line Spacing options allow you to set the number of lines which the printer head moves down between lines of text. The default setting of 1 ensures single line spacing, whilst a setting of 2 produces double-spaced text. This would be particularly useful if you were submitting some written work for scrutiny by, say, a magazine editor, when visual clarity is of the utmost importance.

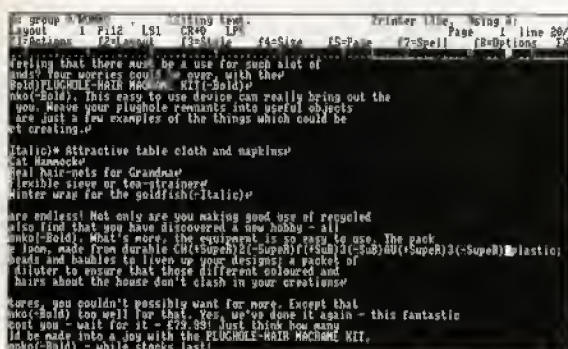
Your carriage awaits you

The option CR extra spacing offers a means of introducing extra spaces between paragraphs, CR standing for 'carriage return'. It can be used in conjunction with line spacing settings, or on its own. In our document, we want to introduce an extra space before and after our list of asterisked features.

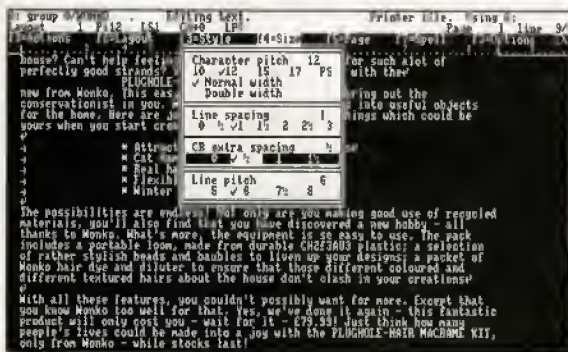
Taking the cursor to the carriage return after 'creating' (the line above the list), press [F4] for Size, and select CR spacing with the down arrow key. Move from the default setting of 0 to 1/2 and press [ENTER]. (See screenshot 4). Take the cursor down to the last carriage return of the list after the word 'goldfish', call up the size menu again, and return the CR spacing to the default setting of 0.

Line pitch is the final setting, and refers to the number of lines per vertical inch on the page. The default setting of 6 means that each line is one sixth of an inch away from the next. Alterations can be made to all the size menu settings by using the 'codes' indicated at the top of the screen preceded by the [+] or [-] keys. The use of keystrokes will actually prompt a modified version of the Set and Clear menus to appear at the top right hand corner of the screen with the relevant command on display. Pressing [ENTER] disposes of the menu and initiates the sizing command into the document. All that remains is to print out your document, and see exactly how those invisible style and size variations have affected your work. (See the final picture). As with most things LocoScriptian, you will be both pleasantly surprised and extremely impressed with the professional and eye-catching result. ●

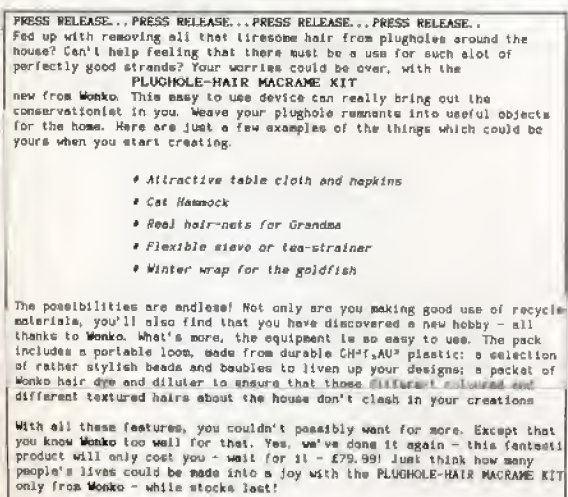
Size of relief



When you have prepared a chemical equation using SuB and SuperScript, ask to see the codes you have inserted ([F8]). The figures are nearly obscured!



The Size menu allows you to alter all sorts of curious-sounding things such as character pitch and CR extra spacing. The effects can be very striking



The finished product. This example shows just a few of the ways in which LocoScript can manipulate text to produce simple yet powerful visual impact

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ARE YOU ONLY USING HALF YOUR PCW? If you have difficulty understanding and using CP/M then SuperDOS is for you (not for the unexpanded 8256 or hard disc drives) (£25.17 + VAT) = **£28.95**

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LOCOMOTIVE SOFTWARE. All new stock. Prices include VAT

For the PCW 8256/8512

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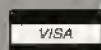
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512K RamPac

The SCA RamPac is the first successful Memory Expansion above 512K that does not invalidate any PCW warranty. Only RamPac is approved by Locomotive Software. RamPac simply plugs onto the back of any PCW and immediately increases the capacity of Drive M by 512K. It is compatible with MicroDesign 2, Flipper and most PCW programs.

CMOS RAM prices are down - so is RamPac!
RamPac 512K Memory Expansion (£99 + VAT)

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PERIPHERALS AND ACCESSORIES

EXTERNAL PRINTERS

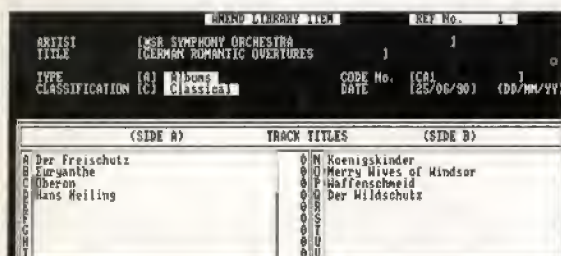
PCW 8256/8512 owners who purchase a printer will also need an Interface and printer cable. We also strongly recommend LocoScript 2. For all PCWs we recommend Locomotive's Printer Drivers Disc and/or the 24 pin Printer Drivers Disc for maximum compatibility with Locoscript 2.

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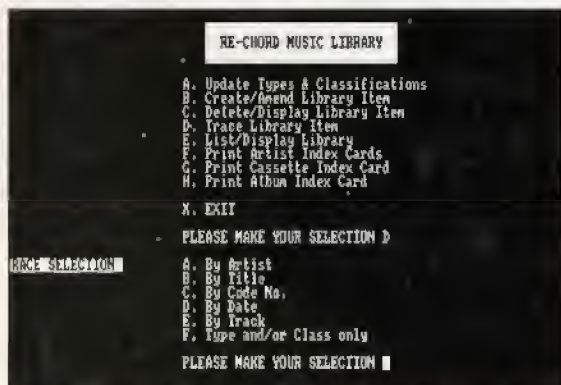
Name that Tune!

A large music collection need no longer be an administrative nightmare thanks to a new database from Cavalier. Sophie Lankenau takes a look

Tracking it down



A complete record shows everything from type and classification to the tracks on either side of the piece - plus the all important reference number!



Re-chord's thorough and speedy tracing facility means that items in your collection can be sought out with the tiniest clue as a guide.

RECHORD

£29.95 • Cavalier Software •
081 639 6683 • All PCW's

Cavalier Software are no strangers to the production of good quality, easy to use 'vertical' software. The release of 'Hotel' reviewed in 8000 Plus in January of this year proved that the company has a particular talent of taking a specific market or interest and producing a tailor-made database to serve its needs. If you have a collection of recorded music which extends into the hundreds, then their latest offering, entitled 'Re-chord', will be of considerable interest to you. Re-chord allows you to catalogue and access any item in a collection of music, whether it is an album, cassette or compact disc, with the minimum of fuss.

Installation is a simple affair; the manual contains separate instructions for all three PCW's, which are clearly written and easy to follow. Be prepared to have two formatted CF2 discs to hand; the program and .EMS files must be copied on to these before you can start. Once this has been done, the software is self-booting, so you can give your CP/M disc a well earned rest while

you are using Re-chord.

Re-chord's opening menu displays eight options, from updating 'types' (this refers to the form in which recorded music is stored, whether it is an album, cassette, compact disc, and so on) and 'classifications', which include classical, popular and jazz music.

When you are entering details of your collection, the option to select is [B] for Create/Amend Library Item. You are immediately asked to provide a reference number. It is suggested that you assign each classification a healthy range of numbers - say from 1 to 1999 for the first group, 2000 to 3999 for the next and so on. You are then presented with a screen into which you enter the details of a particular recording.

The sound of music

If you complete it fully, you will have the name of the artist and the title of the piece, its type and classification, a reference code and the date - which can be the release date, the current date - it is up to you. You can also list all the tracks on the recording, together with the counter number which corresponds with each track (see screenshot). The hash key to the left of [RETURN] takes you back to the main menu.

The reference number which you assign to a given library item is crucial. Numerical sorting is a logical yet irritating feature of the program, as every time you want to either add or amend a library item, you have to remember its reference number. Even if your collection is of modest proportions, you might not be able to remember instantly that you gave Des O' Connors's Greatest Hits the number 87.

Without this reference number you cannot progress beyond the opening menu for many of the options. The numbers you choose are then supposed to be represented on the cassette box or album sleeve, so you could always rifle through your collection to check the number. There is, however, a way around this, whereby you track down the artist or piece first, and then find out the number you have allocated to it. This comes in the form of the [D] option - Trace Library Item.

Go fetch!

Re-chord's tracing system is both thorough and fast, and allows you to search for an item with the tiniest clue as a starting point. Selecting [D] calls up a list of search options (see screenshot) to

help find a given record. So, if you wanted to find details of all the work in your collection by, say, Beethoven, the search by name option would be the one to pick. Similarly, if you were interested to find out the titles of all the recordings you bought or catalogued in July of 1985, search by date would provide you with the relevant information.

The Search by track option provides instant satisfaction to those plagued by knowing the name of a song or a piece, but not being able to remember who it was by or which recording it came from. All you do in this case is enter the name of the track - or even the first few letters - and Re-chord will charge through the records and give you a list of possibles. About the only thing which Re-chord's searching facility cannot do is to let you to hum tunelessly into the disc drive on your PCW, hoping that the machine knows the tune as well and can come up with the name of the song and the artist. This would solve the age old problem of bending your friends' ears with a less than Pavarottian rendition of a piece of music, and expressing surprise when they cannot recognise the song.

A card up your sleeve

Re-chord's 'coup de grace' is its printing options. The ability to print artist and album 'index cards' is an extremely useful feature, and allows you to keep a paper 'back up' of everything you have entered in the database. Not only does this save you having to load the whole program if you only want to run a quick check on one item in your collection, it also means that if, (heaven forbid) your PCW has a fit of amnesia in the middle of a Re-chord operation, at least you have all the information in card index form.

The [G] option, for Print Cassette Index card is a real boon. What Re-chord produces for you is an actual cassette sleeve, which fits into your cassette case and displays all the information you need. So, the spine shows the artist and name of the recording, and on the cover there is a list of the tracks on each side of the recording.

The beauty of the program is that you can exploit its storage capacity to the full, or you can keep details to the barest minimum yet still have a handy catalogue of your music. Whatever your needs, Re-chord is a capable database which is easy to use, and represents good value for money. ●

RE-CHORD

Pluses

- ▲ Excellent search facility
- ▲ Prints out cassette box sleeves
- ▲ Huge capacity

Minuses

- ▼ Numerical reference codes difficult to remember

Documentation	4/5
Features	4/5
Performance	5/5
Ease of use	5/5

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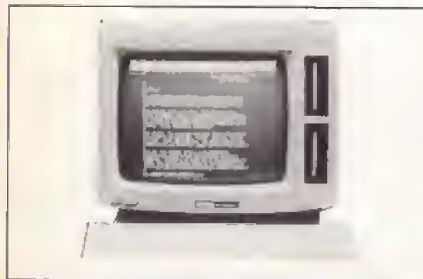
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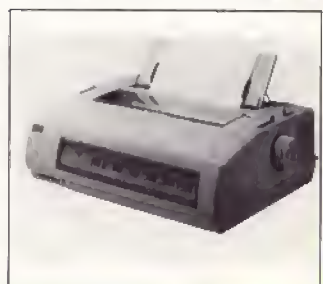
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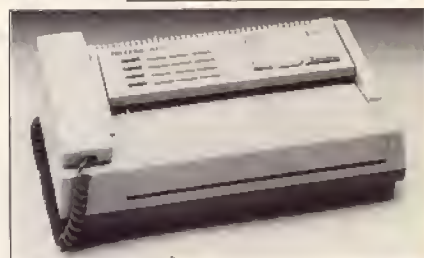
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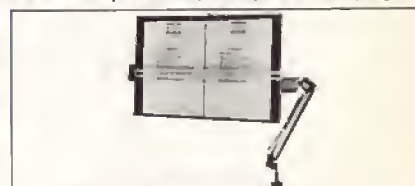
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Trivial pursuit

Some interesting darts facts which you might like to use in order to impress the impressionable: 1) The fewest darts you need to get out in 501 is 9. The following order would suffice; 3 treble 20s (=3 darts), 3 treble 20s (=6 darts), 1 treble 20 (=7), 1 treble 15 (=8 darts) and 1 double 18 (=9 darts). 2) The flashiest way to get out from 501 is; treble 20, treble 19 and bull. This (60+57+50) equals 167 which is a third of 501. Throw this combination 3 times running (bull out) and you've done it. 3) Darts was not invented by the Chinese. It was invented by a cabal of pub landlords and tailors for outsized men. 4) No-one is actually sure how the word Oche (the line from which a darts player throws) came from. Some say it is from the French Loper - to cut a groove or line while others think that the fact that it rhymes with Jockey (as in Wilson) is sufficient reason.

Let's play cheat

The word-search game puts you up against a timer. How well you fare in terms of time affects your score. The PCW comes with a [PTR] key which places you in printer control mode. It also stops the clock and allows you to hunt around for the correct hidden word. Of course we would never suggest you cheat, we're just letting you know about all the functions on your machine.

The PCW provides many things for many people - even a spot of relaxation from time to time. Tim Smith reviews five games in one package

THE COMPLETE HOME ENTERTAINMENT CENTRE

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Up until now there has never been darts on the PCW - that's right, darts. Along with this outing to the oche come dominoes, a card game, a word-search and backgammon. You may well ask what the point is of having games on a PCW which you can quite happily play on a board. To which the answer comes 'Have you ever tried playing dominoes on your own?' A single player game of backgammon is also not the most exhilarating pastime in the world.

The Complete Home Entertainment Centre comes on an A: drive disc. Loading is simple; all you need do is put the disc in the drive and type **DISK**. The contents of the M: drive are then wiped in order to load the games into RAM. Once this is done, the main menu screen loads and you're ready for the off.

The main menu gives you the five options of darts, dominoes, something called the Video Card Arcade, backgammon and word-search. Choose one by pressing a relevant letter. We decided to begin with a pleasantly relaxing word-search.

Hide and seek

The word-search game is the same as those which you would find in magazines such as *The Puzzler* (or even at the back of last month's 8000 Plus). Hidden within what appears to be a chaos of letters are various words, all of which

relate to the same topic. You move from the main menu to a sub-menu. Here you are asked at which level you would like to play. There are three levels - the first sees all the hidden words going in one direction leaving eight words to find, none of which cross each other. Level 2 has sixteen words to discover; this time they cross. Level 3 has twenty-four words going in all directions, crossing and criss-crossing.

The PCW comes into the fray when you decide which timing you want to put on the game. There are four levels with 1 being quick and 4 being very quick. You use the cursor (arrow) keys to move around the board and control a small pointer.

Once you have hit upon the required sequence of letters (the current word to find is listed for you) you use the [ALT] or [EXTRA] keys to actually point in the direction (up, down, diagonal) in which the word is going; for example, **WORDSWORTH** might run diagonally from left to right, so you move the pointer over the board to the first **W** in Wordsworth and then use the [ALT] key to point the pointer down the line; press [RETURN] and bingo! You've done it!

Only it's not always that simple. You also have four lives to play with. A life is lost if you run out of time or point in the wrong direction.

Point scoring is straightforward: ten points for each word found. Bonuses accrue if you complete a particular theme. Different bonuses crop up depending on how long you took, how many lives you used up and at which

level you were playing. Up to four players can join in. Be warned; the game might sound simple but the timing factor gives it some zest. The only real problem is the fact that approximately a third of the PCW screen is used for the word board itself; this makes reading it a tad wearisome.

What a card

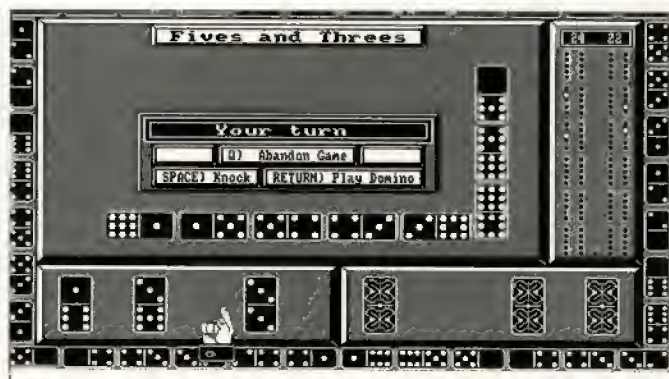
Once we'd played a few, we felt it was time to really get the adrenalin flowing. A few games of cards were in order so we set off for the Video Card Arcade. Moving into this sub-menu gives the choice of three games; Poker Royale, Pontoon (otherwise known as 21's or Blackjack) and a game called High-Low. Not being a gambling magazine, no-one here had ever had any experience of poker whether Royale or five stud or single draw with deuces wild. Poker Royale it was.

Choose this and you are presented with five cards, side by side, at the top of the screen. Below this is the bank (where your winnings go) and credits; you begin the game with twenty of these and use one each time you play.

The idea is that you are dealt five cards; you must then decide which, if any of the five, to hold and which to change. There is one change. The lowest winning hand is two pairs (scoring 20), the highest is a royal flush (scoring 300). Bonus credits are awarded and there is also a high score table. Gameplay is simple enough; press [RETURN] to deal and tap the number of the card (1, 2, 3, 4 or 5) if you want to hold it. Once you made your choices



The Plussers are not gambling people, so naturally we were rather flummoxed by the prospect of having to play a card game. Poker Royale is now a compulsory office pastime.



Dominoes can't be played by one person, and CDS have solved the problem by providing you with a mean opponent - your PCW. The chubby hand selects your move, by the way.

all you need do is re-deal for the new cards - and hope. It's surprising the amount of excitement which you can get from playing this game without any money being involved.

After breaking the bank it was time to move onto Pontoon. If your PCW was ever to be a croupier, it would endear itself to the boss no end: it would also, however, get lynched by the punters before too long. Aside from coming in on, or under, 21 and beating the bank, (this is the lowest win) you can also play for flushes, runs and the other classic card-playing formations.

Again, you press [RETURN] to deal. Once the cards have been dealt, you have the choice of [T]wist or [S]tick. As with Poker, you have a number of credits to play with. Bonuses will pep these up but, essentially, Pontoon is a game which lacks any skill - especially so when there are no actual cards to be shuffled. Any normal game of cards (so we've heard) entails a deal of 'card-counting': this means that you try to remember which cards have been played and mould your game from there. In all of the card games here, you can expect, say, the Queen of Clubs, to be played twice in two deals! Hence no card count; hence no skill.

The next game up is High-Low. We won't go into this in any detail; suffice to say that the same credit/bonus system is used. This time, you have to guess whether the 'next' card dealt will be higher or lower than the one preceding it. Again, pleasant relaxation, but no skill involved.

Domino theory

You can almost smell the acrid odours of Scroggins Triplee Cripple real ale mixing with old Jakes Best Navy Shag coming from the snug when the domino screen comes up. You have four playing options; you can either play with a Double-Six set (the most common) or the more yuppified Double-Nine.

This later set has more dots than a leopard with measles. The two-playing options are good old Domino Out, in which you play with seven doms a hand and attempt to play them all. You play to 60 points (scored on what looks like an old cribbage scoreboard). Points are scored for 'getting out' and at the end of a hand for the person with the least

points in their hand.

The final game option is 3's and 5's. This is fascinating and difficult to get the hang of if you've only been used to playing Domino Out. Points are scored not by the hand, but on each play. The idea is to make sure that you can 'get out' and that the sum of the dominoes at each end of play can be divisible by 3 or 5. So, if someone lays a double-six to begin with, this scores 4 ($6+6=12$, $12/3=4$). The next player could then lay a 6/3 domino (six dots at one end and three at the other) on the double six to give a score of 8 ($12+3=15$, $15/3=5$, $15/5=3$, $5+3=8$). The game continues thus until someone scores 60.

Because of the random nature of dealing in dominoes, the game is not affected by the computer. In fact, the PCW plays a damned good game. The dominoes are chosen by moving a distinctly 1960s pop art hand (very *Yellow Submarine*). In fact the whole look of the game is clean and professional - as you would expect from CDS.

Back gammon stake

The backgammon board could, however, have been better designed. It looks a little tatty - the dice jump rather than glide. You will also find that many of the thrills which come with playing backgammon for stakes are missing.

Basically you play to four levels. Level one shortens the PCW's thinking time while level four allows it to contemplate for a few minutes. Play is still fairly rapid and even inexperienced players will find themselves getting the hang of it and winning more often than they lose. Happily, nothing in the documentation claims marvels for the game. It should keep the kids amused for a while as they learn about the game but for more adult, experienced gammoners it holds little wonderment.

With this in mind, we will move swiftly on to the piece de resistance: darts on the PCW.

There are three game options open to you here in the form of 501, Cricket and Tour Board. There are also three levels to play. The PCW can be Good, Average and Poor. Frankly, there seems to be little difference between the three which means that at least the game isn't fixed from the start.

Once you've chosen the game and

the level, you are taken to the board. This occupies up most of the screen, save for two side bars which give the impression of being a blackboard where your scores are chalked. The way you actually play is highly ingenious. At the bottom left of the screen you will see a small point which jiggles around in frenetic (if drunken) manner. You use the cursor keys to move this point over the area into which you wish the dart to land. Once you have the point in the vicinity of your chosen number, you press the space bar and watch the dart flying through the air.

If you have ever tried to chuck a few arrows standing in a crowded bar, then this simulation of hand-to-eye co-ordination is not far off the mark. The darts, on the other hand, often are. The PCW is also lumbered with the inebriated pointer and appears to lack the native intelligence which tells anyone else to go for the treble twenty.

As for the games themselves, 501 is the classic game in which you attempt to go from 501 to 0 and throw a double to get out. Cricket has one player to bat; this means that he or she throws for the highest score possible, but does not hit trebles or bulls (that means a run-out). The next player then bowls - they have to hit the outer bull (one wicket) or the inner (two wickets). Once ten players are out the roles reverse and the next and final innings is played.

Tour board means going around the board from 1 to 20, outer bull, inner bull in order. The different levels of difficulty mean that when playing Poor you are able to hit any part of the number, while playing Good means that only trebles are allowed.

It's all jolly good stuff and much more enjoyable than standing in a smoky bar with a bunch of drunks bearing small metal weapons. ●

In a nutshell

Five games in one is excellent. Darts is quick, slick and ingenious. Backgammon is only for beginners and lacks excitement. Might introduce dominoes as an Olympic event. The word-search is fun but hard on the eyes. Card games lack zest and skill but are playable.

Pooling resources

We mention in our review of the Domino game that there is a cribbage-like scoreboard which automatically scores the game. Obvious, you would have thought, it's a computer and they're good at that sort of thing. Well ... one of our sister publications recently got hold of a game called 'Pool Room'. This American diversion provides many zappy options for snooker, billiards and pool - it is currently running on roughly £5,500 worth of Apple Macintosh computer. Can it score automatically? Can it heck-as-like!

CDS Games

Phases

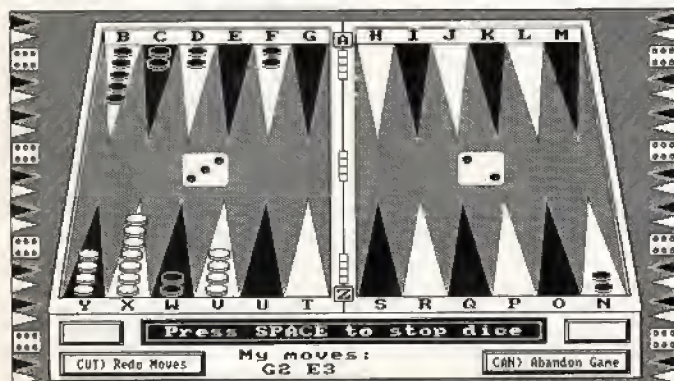
- ▲ Five well produced games
- ▲ Darts is great fun
- ▲ Dominoes beautifully produced
- ▲ Word search challenging

Minuses

- ▼ Backgammon weak
- ▼ Cards lack skill

Ease of use	5/5
Addictiveness	4/5
Features	5/5
Performance	4/5

8000 Plus value verdict	18/20
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The dice are a little nervous in CDS Backgammon; they tend to jump rather than plop neatly to a decision on the board. Gameplay is simple, and not for the expert gammoner.



Word-searching becomes a real challenge when the speed level is increased. The search is topic-related; you'd be surprised how many authors you know when you put your mind to it

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Picture This ...

Tony Hart continues his exploration of Mini Office Professional and shows you how you can arrange numerical data more attractively using the graphics module

Well, as the old adage says, "Every picture tells a story." If you can present information in graphic form - particularly stodgy numbers-based information that has the potential to become very boring indeed - the impact, visually at least, will be many times more than a mass of tabular data. Look, for example, at screenshots 1 and 2 showing product sales. Both contain exactly the same information but one displays the information in tabular form, the other in graphic form. This graph is a line-graph.

Another kind of graph is the bar-chart and screenshots 3 and 4 show how effective this can be when conveying the trends of, say, a golf club membership over a number of years. The third popular form of graphic display is the pie-chart and you can see an example of this in screenshots 5 and 6 where the breakdown of Japanese computer technology is being illustrated.

These examples demonstrate the enormous differences in the presentation of information and the ease with which the graphic interpretation is accepted by the human eye and brain.

Painting by numbers

Your PCW can become an invaluable tool when it comes to quickly translating boring, tabular data into interesting, easy-to-assimilate graphics. Numerous graphics 'packages' are available for the PCW at very reasonable prices.

Mini-Office Professional is one of these packages. This article will use Mini-Office to show just how easy it is to generate graphics on the PCW from a tabular collection of numbers - like those created in the program's spreadsheet module.

Graphs, whether they are line-graphs, bar-charts or pie-charts can be created from two sources in Mini-Office. One is by a direct input of numerical data, the other by transferring the contents of the Mini-Office spreadsheet into the graphics module. We are going to use the latter spreadsheet-to-graphics method taking, as an example, the "Product Sales" example shown in our first two screenshots.

Getting started

We'll start from the assumption that Mini-Office is up and running and that

the "Product Sales" spreadsheet example, as shown in screenshot 1 below, is loaded. The steps to convert the potentially 'deadly' table of spreadsheet numbers to a picturesque graph are as follows:

- Create a graphic 'windows' from the spreadsheet data
- Move the window from the spreadsheet module to the graphics module by exiting from the former and loading the latter. The file that you have just been working on will have been saved with a .GRA suffix.
- Load the graphics windows and display as a line graph.
- Enhance the display with distinctive text.
- Save the final display for future use.

1. How to create the windows

The window required will include the titles and values of the columns and rows of the spreadsheet. In the Product Sales example in screenshot 1, the titles will be the product codes **RED**, **WHITE** and **BLUE**, and the month of sale - January to December. The values will be the actual sales made in each month for each product. The window must not contain unnecessary text like the spreadsheet title or totals. To create the window follow these steps:

- a) Cursor to cell A5, **Product**.
- b) Select Window 1 by pressing [PAGE]
- c) [SHIFT]/[f8] to select **Row selection**
- d) [RETURN] to include row 5 in the window
- e) Cursor to row 7, [RETURN]
- f) Do step (e) for rows 8 to 18
- g) [SHIFT]/[f8] again to complete the row selection

Now to select the columns to be placed in the window:

- h) [SHIFT]/[f6] to begin column selection
- i) [RETURN] to include column A
- j) Cursor to column B, [RETURN] to include column B
- k) Do step (j) to for columns B,C and D
- l) [SHIFT]/[f6] to complete column selection

The window has now been created and you should be able to flip between the window and the full spreadsheet by pressing [SHIFT]/[DOC] and [PAGE] alternately.

Adding graphic details

Product Sales 1989			
Product	RED	WHITE	BLUE
Jan	10000	3000	0
Feb	11000	2300	0
Mar	12000	2100	1000
Apr	12100	2500	3000
May	12000	3200	6000
Jun	12200	3900	7000
Jul	13000	3670	8000
Aug	14000	4200	8500
Sep	15000	5600	9800
Oct	12000	7800	10500
Nov	10000	8500	12000
Dec	6000	10500	13000
Total	139300	57270	78800

The three product sales are supplied in each column with an annual total. To grasp any trends that might be occurring through the year, though, is difficult



The same information that is shown in screenshot 1 is presented in graphic form. Trends in product sales are immediately obvious

Golf Club Handicaps			
H/CAP	Gents	Ladies	Total
0-3	2	1	3
4-7	7	2	9
8-11	20	4	24
12-15	56	8	64
16-19	98	11	109
20-23	87	15	102
24-27	43	9	52
28-31	26	4	30
32-35	0	2	2
36+	0	8	8
Total	339	64	403

Golf handicap scales are in the left-hand column with the actual handicaps, for gents and ladies, in the next two columns



The bar chart shows the 'make-up' of club membership; you immediately appreciate that by far the majority of members are in the 16-23 handicap range

Prints of darkness

Although an excellent letter-quality printer, the 9512 printer is a daisy-wheel printer and so cannot print graphics from the PCW. You could always try recruiting the help of a friend or fellow club member who owns an 8000 series machine.

If photographs of graphic screens are taken, the speed will have to be fairly slow, so it's best to use a camera tripod or, failing that, rest the camera on the back of a chair. Don't forget to draw the curtains so that it's the light from the screen that determines your camera reading, not the light from outside.

2. How to move the window into the graphics module

Having created the required window from the spreadsheet we now need to transfer the window from the spreadsheet module into the graphics module so that the sets of data can be selected and displayed as an impressive graph:

- Select Window 1 then [EXIT]
- Choose Load/Save and press [ENTER]
- Select Save Graphics Data then [ENTER]
- Select Graphics Window then choose Window 1 by pressing [ENTER] until 1 is displayed.
- Select Data sets are then choose Columns by use of the [ENTER] key. There is a choice of Columns or Rows.
- Select Continue, [ENTER], and the window will now be transferred into the graphics module where a Graphics Data screen will be displayed. (See screenshot 7).

The cursor will be on the first of the data sets i.e. RED and the values of the sales relating to RED will be displayed

in the vertical columns on the right of the screen. The data sets to be displayed as graphs (in this example, all the sets, i.e. RED, WHITE and BLUE) are now to be selected as follows:

- With the cursor on RED press [ENTER]
 - Cursor to WHITE, [ENTER], and repeat for BLUE
- Each time [ENTER] is pressed, an S will be displayed against that data-set to indicate that it has been selected for display.

j) Finally press [S] to start the Save routine.

A file-screen will now be displayed and a default file-name presented that is the same as the spreadsheet file-name but ending with .GRA instead of .SPR.

- Press [ENTER] to save the graphics window and the selected data-sets. Now to return to the spreadsheet and save it along with the spreadsheet window that was created:
- [EXIT], Select Save data then [ENTER] and [ENTER] again after the file-name has been presented.
- [EXIT] and [EXIT] again to return to the Mini-Office main menu

now in the graphics module, we can now enhance this screen by adding various kinds of text to complement the data on the screen.

All the extra text shown on screenshots 2, 4 and 6 has been created using the text-option. To create the Product Sales - 1989 headline do the following:-

- Select the TEXT icon on the right of the screen and [ENTER]
- Select SIZE, then press [ENTER] until the size of text you require is shown.
- Move the cursor down one and select BOLD by using the [ENTER] key.
- Move the cursor down to Border and select the inverted border again by using the [ENTER] key.
- Cursor back to TEXT, [ENTER] then type in the required text i.e. Product Sales - 1989 into the field at the bottom of the screen. Press [ENTER].

A rectangular box will now appear in the top, left-hand corner of the screen. By using the cursor arrow keys you can now position the box anywhere on the screen.

f) Press [ENTER] to place text where the box is finally positioned. This same process can be repeated for all the other text fields. Variations in the size, brightness and border are easily made using the options on the text screen.

5. Saving the enhanced display

Up to now we have two files saved on the disc. One is the spreadsheet file with its new window (PRODUCTS.SPR), the other is the graphics file with the three data-sets (PRODUCTS.GRA). In order not to have to repeat this enhancement process unnecessarily, we can now save this enhanced file within the graphics module. The file is saved as a "picture" rather than as a number of data-sets. Save it as follows:

- [EXIT] from the Text creation screen.
- Select OPT then [ENTER] for the options screen.
- Select the 'Save to floppy' icon, i.e. the icon showing a floppy with an arrow pointing TOWARDS it!
- Now enter a file-name e.g. PRODUCTS.ZZZ, then [ENTER].
- The enhanced screen will now be saved to the disc.
- [EXIT] three times back to the Mini-Office menu.

Note that this enhanced file is brought back and re-drawn by going into the graphics module, loading the graphics file with the three data-sets that were saved from the spreadsheet window, i.e. file PRODUCTS.GRA then loading the enhanced screen, PRODUCTS.ZZZ with the "load from floppy" icon.

On display

The easiest way of reproducing PCW graphics is 'dumping' the screen to the printer (just press [EXTRA]/[PTR]). This printout can then be included in a report, pinned on a notice board or reduced using an office copier and "pasted" between text paragraphs.

A slice of pie?

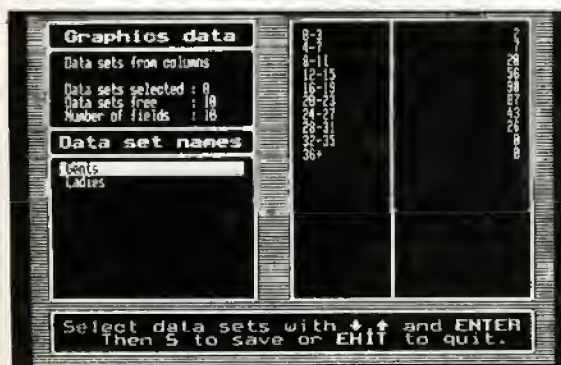
Estimated Japanese Computer Industry Growth

	1989	1995
M/frame	2200.00	3800.00
Office	825.00	1250.00
Minis	450.00	1200.00
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Periphs	600.00	890.00
Comms	45.00	85.00
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This tabular data isn't easy to interpret particularly because it represents a change from one period to another; the range of values is also very wide



The pie-chart of the same info displays only the 1995 expected figures and the major sectors are made clear. Pie-charts are ideal for showing parts of a whole



The Graphics data screen (of the gold club membership figures) displays the characteristics of the data sets (left) and their actual values (right)

3. How to load the graphics module and display the graph

Now that the spreadsheet window has been selected and transferred into the graphics module, the real benefit of an "integrated" package like Mini-Office can be gained. Without this integration, the alternative would be to type every number from a spreadsheet into a graphics package before it could be displayed. Displaying the Product Sales graph is very simple:

- Select Graphics, then [ENTER], to move into the graphics module menu.
 - Select Load/Save, [ENTER], Load, [ENTER]
- Now a file-screen is shown from which the relevant graphics file to be displayed is to be selected.
- Select the graphics file that was saved in the last section at step (k), i.e. PRODUCTS.GRA, [ENTER], then [EXIT] back to the graphics module menu
 - Select Line graph, [ENTER], and a graphics option screen will be displayed. (See screenshot 8).
 - Select OPT, [ENTER], then Data Set, [ENTER]
 - Type 3, [ENTER] in response to the question about the number of data-sets. (We're using data-sets RED, WHITE and BLUE).
 - Enter 1, 2 then 3 to the requests for the primary, secondary and tertiary (third) data-sets.
 - [EXIT] then [ENTER] for the graph showing Product sales for RED, WHITE and BLUE to be drawn on the screen. (See screenshot 2).

4. How to enhance the graphics display

Once Mini-Office has drawn the basic graph on the screen from the data-sets

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Creating a Workstation

Unpack it, unwrap it and look what you've got! We piece together the PCW package

For many readers of 8000 Plus, buying their PCW represents their first ever computer purchase. And if you've never done it before, it can be very daunting to arrive home, open the box and survey each of those tightly-packed components which are waiting for you to arrange them into some semblance of order.

Yet, as we hope this photographic guide shows, it doesn't have to be all that difficult. A brief look should be enough to show even the most hesitant newcomer exactly how A connects to B. We've also included a few optional extras to show the beginner how he or she can straight away make their working area as comfortable and as productive as possible.

The printer

This is the dot matrix printer that comes packaged with the PCW 8256 and 8512. This printer is set up to print on 11 inch continuous stationery; the tractor feeder (supplied with the machine) ensures that the paper doesn't slide in any way as it is fed through. Using continuous paper means removing the paper tray extension (which folds down over the top of the printer when it isn't in use) and feeding in the paper from the back.

To avoid possible obstructions and fouling, we've set up a simple two-level letters tray. This means that instead of the printed section falling onto the incoming stack, creating a confusing tangle, each part occupies its own tray, the latter occupying the one underneath. Try not to tear continuous stationery while the printer is in mid-flow; it can lead to smudged letters.

The printer has two cables with which to connect it to the back of the monitor. First, insert the connector on the end of the flat ribbon cable into the narrow 34-way socket; then insert the plug into the power out socket. Both sockets are easily located on the back of the machine.

External disc drives

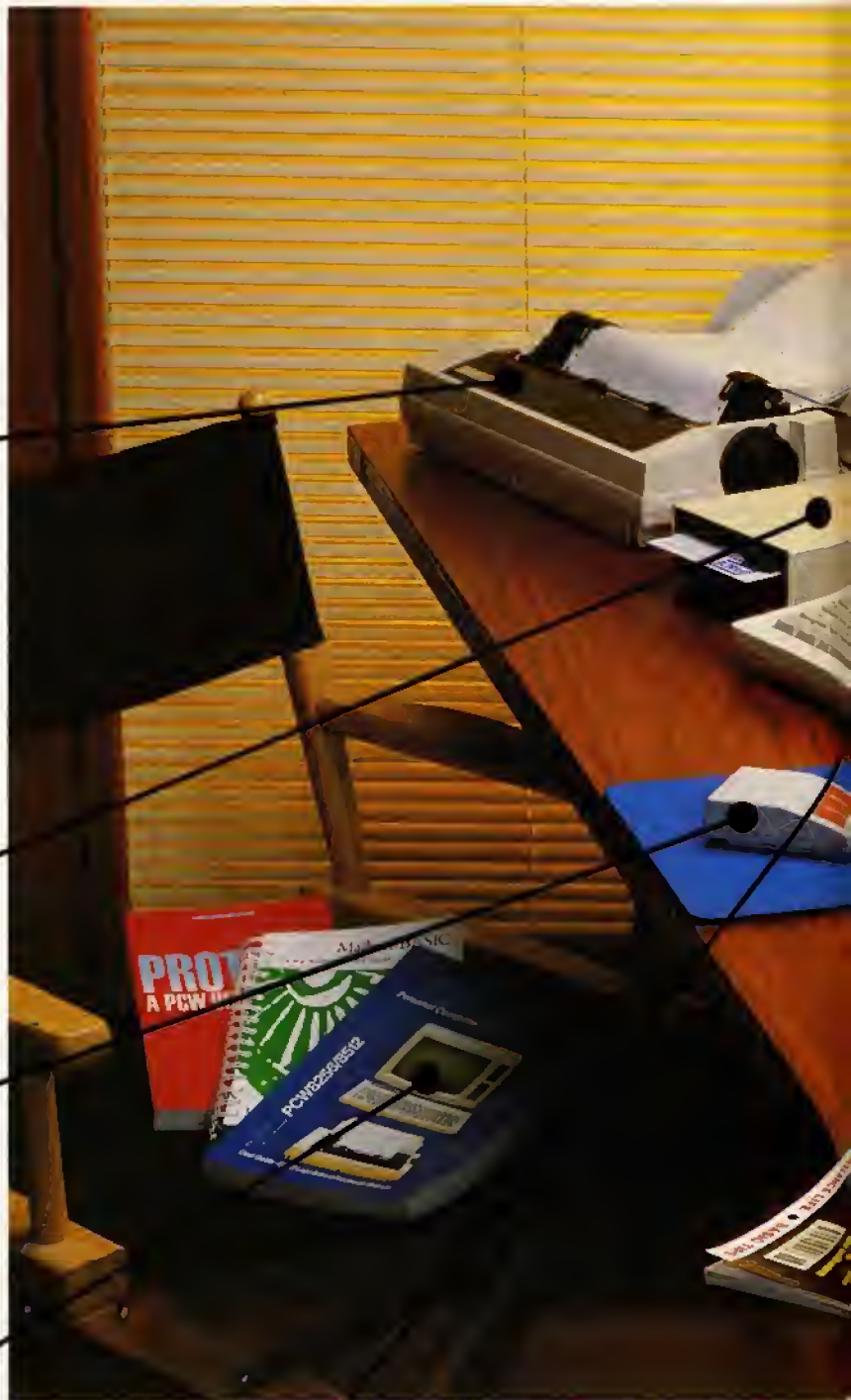
Why not make your PCW a more approachable, not to mention, versatile, machine by adding an extra external drive like the 5.25 inch drive shown here? Follow our simple, step by step walkthrough showing you how to do just that on pages 10 and 11 of our May issue. It could just as easily be a 3.5 inch drive, though (find out how in issue 41). 9512 owners, meanwhile, should read last month's special 9512 Surgery feature.

Mouse and mat

Try and use a mouse – instead of the keyboard – whenever possible. Not only does it make the creative process when using DTP programs much easier and intuitive, it will also protect your keyboard from any unnecessary bashing. Pictured here is the Kempston Mouse which comes with its own interface for £69.95. Mouse mats, indispensable items of comfort for both you and your rodent, are available through most hardware suppliers for about a fiver.

Books

The books featured on this page represent the best in PCW learning. They have all been written with one purpose in mind: to help you get the best out of your machine, whether you are programming in Mallard BASIC (*Mallard BASIC, Introduction and Reference* from Locomotive Software), learning to use the PCW's native word processor, LocoScript 1 (*Easily into LocoScript* by Susan Rogers) or trying the alternative word processor, Protext (Rob Ainsley's *Protext, A PCW User's Guide*). Respective prices and publishing houses can be found in the April issue. The blue book on the chair is the User Guide supplied with the machine.



The keyboard

You hear a lot, these days, about tenosynovitis (more easily referred to as repetitive strain injury) a common affliction of VDU operators. To minimise the risk of such occupational hazards, be sensible about the positioning of your keyboard in relation to where you will be sitting. Don't succumb to the temptation of resting your wrists on that part of the keyboard below the spacebar while you type. Make sure that your hands hover over the keyboard at all times – not claw-like however. Your lower arm – from the inner elbow to the middle finger knuckles – should always be kept at right angles to your upper arm.

The keyboard is connected to the monitor by means of the 4-pin DIN plug at the end of its cable; this clips into the socket on the right hand side of the monitor.

The monitor

The Central Processing Unit, or monitor, is the most important element of the three that form your PCW system. It is in here that all the hard work of creating, saving and retrieving is carried out.

The monitor is switched on and off by means of the pushbutton power switch on the front, bottom left hand corner. When switched on, the screen itself becomes bright green. Leaving it switched on, without inserting a disc into its drive, will elicit after a few minutes, a quite shrill three-beeped signal to tell you that you've forgotten something. Simply insert the appropriate side of one of the supplied discs and press the space-bar. The program will load

after first displaying a screenful of green and black horizontal stripes.

The brightness knob is located underneath the monitor at the bottom, right hand corner – under where it says Brightness, funnily enough. This allows you to alter the contrast on screen to a personally acceptable level to avoid eyestrain. Use it to fade the screen completely when the PCW is switched on but unused for any length of time; this will prevent "image burn". This is a condition where, after leaving your machine on for long periods of time, the words on the screen seem to leave an impression on the glass. The monitor should be positioned about 18 inches from your eyes.

The modem

The modem is an essential pre-requisite for the dedicated comms enthusiast. Its role is to act as an intermediary between your PCW and the data that is either being sent or received down the 'phone-line. In other words, it's an interpreter. Modems can be very expensive, some costing up to nearly twice as much as you paid for your PCW; it pays, therefore, to make your purchasing decision carefully. Don't be seduced by all of the bells and whistles that you see; not all of them will be of use to you. Become a discerning modem buyer and read our Which modem? feature in last year's August issue. Pictured here is the Amstrad SM2400.

Discs and disc boxes

The PCW comes with two 3 inch double-sided, floppy discs. On these are CP/M, LocoScript 1, Mallard BASIC and DR Logo. First of all make back-ups of these master discs and put them away somewhere safe. It is usually a good idea to keep your working discs somewhere safe – like the disc box shown here. While it won't necessarily prevent them from being pinched or burnt in a fire, it will perform a very valuable service in protecting them from more everyday enemies, like dust, the 'phone and, that old favourite, coffee spillage.

Don't play around with your floppy discs, like pulling back the shutter to reveal the delicate disc surface, and keep them well away from magnetic fields, like loud-speakers and telephones. Above all, make regular back-ups of discs holding important information.

The disc drives

Depending on whether you have bought a PCW 8256 or 8512, you will have either one single density 3 inch disc drive positioned to the right of the screen – or two of them. The machine pictured here is an 8512.

Insert a disc into the drive by holding it at its labelled end and pushing it gently in until it clicks home. You will then hear the drive whirring gently as the small red light underneath it to the right begins to flicker intermittently on and off. This means that the machine is reading what is on the disc. The larger the file it has to load, the longer this will take.

To withdraw a disc from the drive, simply press the eject switch, the black rectangular button, to the right of the drive opening. Never do this, however, while you can still hear the drive whirring and see the light flashing. This could damage both the disc and the head that is reading it.

Similarly, always empty the drives of their discs before switching the monitor off or rebooting it. While you will, from time to time, see many a blase user doing just that, it's not recommended practice. The power surge could corrupt your data.



Not today, thank you

Process versus purpose: Dr James Willis reports on the rather uneasy relationship that exists between the computer enthusiast and the end user

In the early days of motoring, if somebody called himself a 'motorist' it would be taken as a more or less complete description of the man. You'd know exactly what to buy him for Christmas, for example. Today, just the same sort of person might call himself 'a computer enthusiast'. The very same chap who would have had a bad back, a rocky marriage and black finger-nails a generation ago, has a bad back, a rocky marriage and black rings round his eyes today. Where once he spent his life under his car, he now struggles endlessly with neurone-knotting problems of the kind only computer enthusiasts know exist. 'I'm just going upstairs to the computer for a few minutes, and I may be quite some time ...'

Unfortunately, what the enthusiast wants from computers is quite different from what the ordinary computer user wants. The enthusiast is interested in process, the user in purpose. The latter doesn't give a damn how the thing works, so long as it does the job. And while the enthusiast wants development, novelty and change, the user desperately wants and needs stability. That is why it is so significant that it's the enthusiast who currently calls the tune.

Change for change's sake?

There seems to be a circus of manufacturers, programmers, journalists and enthusiasts whose vested interest is bound up with continual change. They follow the latest developments and ideas as avidly as the motorist of twenty-five years ago followed double wishbones and toggle switches. And they have as much contempt for those who do not follow the scene as any other fashion buff. But as they whoop off down the road of change enveloped in razzmatazz the bemused user is left behind on the roadside carefully blowing the dust out of his trusty keyboard.

You would never guess from the computer shelves in a bookshop that the most widely used word processor in this county is the Amstrad PCW. This is, par excellence, a user's machine. Almost as soon as it appeared, large numbers of people whose interest was words recognised that at last they had a useful tool at a price they could afford. Amstrad PCWs have been selling like hot cakes all over the world ever since. A great deal of the credit for this goes to Locomotive Software for the accessibility and deceptive simplicity of the word processor program which comes with the machine: LocoScript.

It is a program that 76-year-old grandmothers can learn to use. It can be enhanced to perform arithmetic in documents, to personalise letters for lists of people, and now to store information in a database of the most modern, conve-



PCW-owning GP James Willis: "the PC version of LocoScript is the best thing that could have happened for the PCW because it ensures that people's investment in expertise and accumulated data will be transferable to IBM PC should they ever wish to make the move in the future."

nient and flexible kind. And to equip LocoScript to do all this costs a total of £84.80, not the hundreds of pounds charged for a typical IBM PC program. Similarly, accounts, payroll, graphics, spreadsheet and DTP programs for the PCW all cost well under a hundred pounds. And they all produce amazingly good results on the PCW's standard printer which is included (of course) in the original price.

Monitoring the temperature

This is a machine which will do a great many very useful things for people who take the trouble to learn its ways. It will take them years to exploit anywhere near its full potential. All that time they will be building their investment, not just in programs they bought, not just in their energy spent learning to use them, but also in the way they have organised their lives.

Their computers will impinge on their lives like pen and paper. Accounting records, summaries of plants in the garden, copies of correspondence – the list is endless. So the more commonplace the use of computers in our lives, the more dependent we become upon them. And the less we are able to accommodate the change which is part and parcel of the enthusiast's life.

Remember the decimalisation board? How long was it they thought it would take us to adapt to centigrade temperatures? I remember the plan – two years with the radio announcers giving Fahrenheit followed by Centigrade, then two

years the other way round, then drop the Fahrenheit altogether and bingo, we're all thinking in Centigrade! How far out could they have been? If that was a small step for a man, surely changing over to a new word processor would take him all the way to the moon!

One last analogy: I'm suggesting a solution to this problem. Take the RISC chip; the story here is that microcircuits became too sophisticated for their own good. The designers were just going on and on, adding every new bright idea in an attempt to keep ahead of the competition. As a result, the chips were so bulging with clever features that the complexity got in the way. So some bright spark came up with the idea of making it simple again. And the Reduced Instruction Set Computer was the result. RISC. A no-frills, back to nature affair, stripped out for action, which worked very well.

RISCy business

What we need is a set of computer standards designed to be used for a purpose, not to be used as an end in itself. The principal characteristic of the RISC system should be stability to allow people to grow into the use of these novel tools without their investment constantly being undermined by change (which isn't necessarily the same thing as progress). And although the vested interest of the computer circus lies in change, we need recognition that the vested interest of society as a whole requires a lot of stability as well.

The Amstrad PCW is far more appropriate as the Model T Ford of the computer age than is the IBM PC, because it is primarily a user's machine. With 600,000 users in Britain alone, its future appears secure, but I remember them saying that the Commodore PET was the machine to get if you didn't want to be left high and dry. And I believed them.

A number of medical writers I know have been persuaded by computer enthusiasts that their PCWs are old-fashioned and that they should change to the IBM PC. Only to find the new machine more expensive, bulkier, totally unfamiliar and generally less satisfactory. You don't really appreciate the flexibility of a dot matrix printer until you buy a daisy wheel and find that you can't print graphs or the mini-print for your Filofax telephone number list.

But then the enthusiasts don't know about the PCW anymore, do they? They haven't got the time to find out. They are off somewhere down the road and round the corner, enjoying that colour, loving those 3D graphics, thrilling to that sound. Hardly able to wait until next week when the new model comes out with double wishbones and toggle switches. ●

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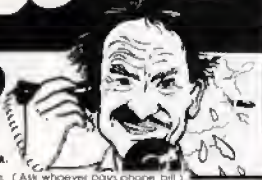
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3 1/2 x 1 15/16.....	6.73	11.46
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4 x 1 7/16.....	5.69	9.66
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Noms de Plume



Articles of Faith

Sophie Lankenau journeys to Truro to visit the source of inspiration for thousands of aspiring writers and finds two PCWs busy earning their keep

The Write Lines

More people than you think are writing for a hobby. Gill was invited for an interview on Radio Cornwall's 'Cornwall Daily' programme, where listeners were invited to phone in with questions about becoming a writer. The switchboard was busy for almost an hour.

Noms de Plume is a company run by four clever women. The work of Gill, Anne, Joyce and Alice ensures that hundreds of aspiring writers can have easy access to a course which promises to improve their creative technique. Joyce and Alice are responsible for the production of all the course's written material – no small feat when you consider that they are both under five years of age. It all sounds pretty astounding until you discover that Joyce and Alice are, in fact, the two PCW 8256s used relentlessly by Noms de Plume since the inception of the business in 1988.

Gill Kingsland created Noms de Plume in response to the extra curricular interest which her creative writing evening classes were generating. "People were phoning me between sessions, asking for advice and for written information about publishers and so on. In the end, a sort of club evolved; it gradually expanded into Noms de Plume," she told us. "There are many people who feel that they want to write, but are hindered by lack of time and resources. What we provide is a course consisting of a cassette and written study sheets, which people can digest at their leisure in the comfort of their own homes."

Bridging the gap

Having a PCW alleviates some of the more complicated aspects of running a business, particularly since Gill's partner, Anne Acaster, lives 350 miles away. "Exchanging information over that distance would be both inefficient and frustrating if we weren't able to just pop a disc into an envelope and send it off" explained Gill. "Also, the cost would be phenomenal – the paper equivalent of what a disc can hold would be very expensive to send by post!" she added.

The team of PCWs are used in every aspect of the business, from producing letters and course work to managing the accounts. The business (and home) accounts are dealt with by

Gill using SuperCalc 2. LocoScript 2 looks after the bulk of the other business. It is used in conjunction with LocoMail to produce a list of some 500 names and addresses for any mail-outs which need to be done. Every student is allocated a file in LocoScript 2 in which are stored details of their progress, and appraisals of the written assignments which they submit. On completion of the course, they receive a print-out of their file.

"Without the PCW, we simply couldn't run the business" explained Gill. "Because LocoScript 2 is so simple and so capable, we can do everything which is required with no fuss and the minimum of effort. We treat our machines almost like humans – they are invaluable" she added.

So why did Noms de Plume adopt the PCW in the first place? "I had done a BTEC in wordprocessing at Falmouth college" Gill explained, "so at least I had some idea of what I wanted out of a system. The initial thing about the PCW was that it was a well-priced package which I could afford. Also, LocoScript was very easy to learn, and offered the kind of editing facilities which I saw as important. I'm glad that LocoSpell is around – my own spelling is best described as imaginative! I also like the idea of having so much screen space to work on, with all the menu commands clearly on show – some packages have you working in a tiny box somewhere!" she continued.

Was there anything which Gill didn't like about the machine? "I just wish that they had let me write the manual," she laughed. "It could have been written in Cantonese for that all I could understand of it!"

By accident and design

Partner Anne Acaster is also an ardent fan of the machine. "My husband persuaded me to buy the PCW in the first place, because he knew that it was the kind of machine I could get to know without yielding to the temptation of throwing it out of the window! At first,



Noms de Plume partner Gill Kingsland: "To be a writer you have to be arrogant, to believe totally in yourself and your ability."

I suppose I just saw the PCW as a flash typewriter – but then my husband Tony (who is a CAD supervisor for an avionics firm), showed me the other things which it is capable of."

It was tinkering with Masterscan, a scanner which attaches to the printer head, which first gave Tony the idea of producing a sleeve for the course cassettes which students work from (see picture). "The capabilities of Masterscan together with the tools which MicroDesign offers means that we can experiment endlessly with design – from these sleeves, to letter headings and stationery" added Gill.

Anne shares her business partner's enthusiasm for LocoSpell. "The spellchecker is vital, given the nature of the business. A casual bungle now and then just isn't permissible when it is so important to convey confidence and literacy at all times. My spelling is, in fact, pretty abysmal, so everything I put on the screen – be it a three line memo or a 2000 word evaluation of someone's course work – I run through the checker automatically."

To Find Out More

So, how to get hold of those courses! Telephone enquiries may be made by dialling 0622 747263. If you would prefer to write to Noms de Plume, address your envelope to 9, Sirangways Terrace, Truro, Cornwall TR1 2NY. Entry forms for the Noms de Plume 1990 Creative Writing Competition can be obtained from either of these contact points.



Articles of Faith

Gill Kingsland and Anne Acaster are well qualified to teach others how to improve their writing. Gill is an ex-journalist (for local and national newspapers), and has had a children's book published. Anne has had work published in many places, but usually under a pseudonym. "The day I find a market and a subject which I am truly interested in, I will come out from behind my pseudonym!" said Anne.

It is not a matter of lucky coincidence that both Anne and Gill find the PCW and LocoScript so easy to use. "When we decided to set the business up," explained Anne, "we had already bought our PCWs independently, without one or the other's recommendation. Therefore, we had none of the obstacles which many small businesses encounter, such as having to get to grips with new technology before we could even think of progressing," she told us.

Travelling light

Since the business is divided between Kent and Cornwall, Gill is often travelling from one county to the other for meetings with her partner. "I just wish that I could take Joyce (my PCW) with me – I waste so much time on trains. Once you have gained the ability to think into a machine rather than use a pen and paper for your writing, it is difficult to revert back – I find my fingers itching for the keyboard." Had Gill considered investing in one of the portables currently on the market? "I have been looking at the Atari Portfolio" she replied, "but I haven't come to any decisions yet. Unfortunately, money is always a limiting factor in situations like these".

At the moment, the Noms de Plume courses consist of tape-recorded tutorials. Gill and Anne's plans for the future include presenting the informa-

tion in disc form as well. "More and more 'part-time' writers have word-processors, so putting the course on disc is a logical step. We will still have the cassettes though, because we have blind and partially sighted people amongst our students."

Prosed for success

Gill is unequivocal about the role of the PCW for a writer, whether aspiring or established. She frequently has to deal with people who lack confidence in what they produce, and think that their efforts are worthless. "People are so afraid of the blank page – and they are limited when typing or handwriting their work, because the prospect of editing involves such a laborious process. The PCW is fantastic in that respect. For me, it has improved my writing – I no longer worry about making grammatical mistakes or spelling errors. With the PCW, I can let my inspiration take over, put down all my ideas and then go back and evaluate the piece later on."

Gill does warn, however, about the



The Noms de Plume study pack. Courses can be 'interactive' or 'non-interactive'; this is simply the difference between having work marked, or just keeping it for your own reference

dangers of assuming that using a word processor will suddenly make you into a writer. "It is rather like the courses which we run – we cannot guarantee that at the end, you will become 'a writer.' All we can do is teach technique, in a lively and humorous way, and offer to improve the quality of people's writing.

In the same way, you cannot expect the PCW to make you into a writer – what it will do is to ease the practical obstacles which hold up the flow. I do disagree with those who maintain that word processing takes the soul out of writing, that it encourages format writing or laziness. Basically, if you don't suffer from those faults in the first place, the PCW won't give them to you, and if you do have them, they won't suddenly be cured!"

Do the write thing

The question 'How can I become a writer?' is one which Gill encounters daily. "I hear from a variety of people, who are either in the 'I'm brilliant, can you get my work published' school, or the 'Where do I start?' division. My answer is simple. You start by getting a pen and paper, or a blank screen in front of you. You then work at turning your hobby into a credible pursuit."

Noms de Plume's courses are in demand abroad. An American agency has approached Gill to go to the States and back up promotion of the courses with a nationwide lecture tour. As soon as time and money permit, the offer will be taken up. In the meantime, Gill and Anne are concerned with encouraging more and more people to try the course and to discover the enjoyment of writing. And the secret for Gill? "To be a writer you have to be arrogant, to believe totally in yourself and your ability. Above all, though, you must have fun whilst you are writing. The final step is not so simple. You have to hope that one day, you will meet someone who appreciates your work – and then it's all worth it!" ●

A MATTER OF COURSE

Noms de Plume have three courses. The Foundation course can be completed in six weeks, the Intermediate link takes three to four weeks, and the Advanced section takes a further six weeks. This all depends upon whether students apply themselves regularly to the work. "The thing about our courses is that they can be 'interactive' or 'non-interactive' explained Gill. "That is simply the difference between sending in written assignments for marking, or just using the assignments for your own practice. An interactive course is more helpful for gauging your progress though," she added.

The Foundation course and the Advanced course cost £45 each, and the Intermediate course (non-interactive) is £20. If you buy all three together, you save £20. Tapes comprise lectures and exercises, and are backed up with written notes. There is a series of 'How to' courses, dealing with individual topics in depth, such as the writing of short stories, romance, non-fiction and advertisement copy. These are £15 (non-interactive) or £25 (interactive).

Gill finds that offering a tutorial in cassette form makes for a more structured learning process. "People tend to take notes as the tape plays through, treating it rather like a classroom situation. Luckily, our teaching methods involve a certain amount of humour, so they bear no resemblance to being at school!"

Spreading the word

Students can join at any time of the year – there are no 'terms' at Noms de Plume, simply because the work is done by people in their own

homes. "I am hoping that we will be able to set up a series of area lectures, so that our students can get together. I do run lectures in this area on Saturdays at the moment, and for those who cannot attend, the lectures are available on tape at a cost of £15 each" explained Gill. Most of the original enquiries about Noms de Plume's courses come from women. However, Gill told us that the majority of those who then buy and complete the courses are men. "The trouble with writing is that it has a sort of stigma attached to it – unlike most other hobbies. I suspect that for an awful lot of women who are at home, reliant upon their husbands' incomes, taking a chunk out of the household budget for their hobby is something which they are wary of doing."

However, it was a female Noms de Plume student who recently won a competition for writing about the most unusual romantic meeting. Her success not only earned her a weekend in Paris, but also a regular reporter's job on a regional newspaper. "And she is the proud owner of a PCW8256!" added Gill.

Noms de Plume run their own annual competition for Creative Writing. Entry forms are currently available for 1990's three category contest. Competitors are invited to write either an historical romance of not more than 5000 words, a three minute story for a radio broadcast, or a 600 word newspaper article. Judges include author E.V. Thompson, Tim Hubbard of Radio Cornwall and Max Hodnett, Editor of the West Briton. Submissions must be accompanied by the official entry form, which can be obtained by writing to the address shown in the margin overleaf.

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Nick Vandome charts the progress of a writer's work, from the joy of birth through to adolescence, old age and even reincarnation

To most casual readers the average lifespan of a newspaper or magazine article is about fifteen minutes – after which it is wrapped casually around a fish supper or deposited in the pile of reading matter next to the toilet that people flick through to take their minds off last night's curry. However, for the writers of these throw-away masterpieces – who are never casual, only slightly obsessed at times – they represent living, breathing creatures that they have nurtured during their formative years and finally seen disappear onto an editor's desk. But as with all siblings, the journey from birth to adulthood is a torturous one that is fraught with worry,

despair, dispute and insomnia.

The birth of any article comes in that ephemeral form of The Idea. Writers seem to have differing views about the ease with which ideas pop into their heads: some appear to have to fight them off every second of the day while others claim they sometimes go days or weeks, struggling to dream up one idea for a saleable article. In between these two extremes, and with a greater reliance on graft than inspiration, there is a fertile middle ground to explore, that should leave no-one suffering from Idea-Block for too long.

To find ideas I usually rely on two tried and tested methods. These entail either picking a specific topic and

working from there, or collecting everyday pieces of trivia and seeing what effect they have on my battered mind. These are the foundation stones.

Germination

The approach of dissecting a favourite topic is one of the best stand-bys. For instance, if you normally write about the inside of a ping-pong ball try and find a new slant: look at it from a historical point-of-view (who invented it, when, why), a sporting one, a technical one (how it is made and is it environment-friendly), a health and fitness one (The Ping-Pong Diet) and 101 other different variations. Start with the obvious and then delve into more and more obscure corners. If you end up with one good idea then it will be worth going through this procedure.

It is also worthwhile, occasionally, to try and find article ideas in subjects that you are not normally interested in. A few weeks ago, when things were going rather slowly up in the old grey matter I wrote down on a notepad a subject I had little knowledge of, the Royal Family. Nothing immediately sprang to mind. Later in the week I was wandering around town, still hoping for inspiration to accost me, when I saw a Royal coat of arms on a shop wall. A few enquiries informed me that the shop was a Royal Warrant Holder (providing goods and services to the Royal Household) and so an idea for my article on Royalty was born.

A less reliable method of finding ideas is to pick up on all the trivia of the day and see what effect it has on your mind. In this respect you are working 24 hours a day – reading snippets in newspapers, listening to conversations (not only the ones intended for you – overheard conversations on buses and tubes are great sources for ideas), playing Trivial Pursuit and basically just keeping your mind alert to what is going on around you.

Ideas that are formed in this way are likely to strike at any time so always carry a notebook and write them down – even if it is the middle of the night. A word of warning though: it is always vital to leave these ideas to ferment for a few days to see if they really are as good as you originally think. I have frequently had Pulitzer Prize winning

GREAT WORKS FROM LITTLE ACORNS GROW...



Roving reporter, Nick Vandome: that's me!

JUST over a year ago I was lying on a beach in northern Queensland, enjoying the near-perfect climate and watching the numerous tourist vessels sailing out to the Great Barrier Reef. In my sun induced stupor I wondered vaguely about what was being done to preserve the Reef from this ever increasing number of tourists. An idea for an article was born.

I worked on this idea, studied the market of likely magazines and then sent my first query letter to GEO magazine, the Australian equivalent of National Geographic. I explained to the editor who I was and told him the outline of the idea, tourism and conservation on the Reef, and mentioned some of the people who I planned to interview. Much to my delight he wrote back and asked if I could produce a 2000 word article for him, including some background history of the area.

For my initial research I contacted the local MP who was very helpful and gave me access to his personal library of books and press clippings concerning the Reef. Next I interviewed Frazer Muir, a conservation officer with the Queensland Department of Environment and Conservation (QDEC). He gave me a long interview, all of which I noted down by hand. I then spoke to more officers of QDEC and was invited on one of their surveillance flights over the Reef.

After I had written the article I showed it to Frazer who disagreed with some of the quotes I had attributed to him so it was back to the PCW for a re-write. This produced further problems and it was eventually third time lucky when we agreed that the text was satisfactory.

My next problem was to get photographs. I needed someone with local knowledge and when I mentioned this to Frazer he told me that one of the QDEC officers was a keen amateur photographer and he had already had some credits in a similar magazine to GEO. He agreed to take the necessary pictures and said that he would negotiate payment directly with the magazine.

Finally I spent a few hours in the local library educating myself about the history of the area and then sent off the article. It was accepted a fortnight later. After this I started at the beginning again and wrote a 'Day in the Life' piece featuring the work of the QDEC officers and also a natural history piece on the Crown of Thorns starfish that pose a great ecological threat to the Reef.

All in all not a bad result from a few hours sunbathing.

ideas in the pub on a Friday night, only to cringe at the very thought of them in the cold, sober, light of day.

Conception

Once you have your article idea the plan is to develop it into a living, breathing piece of prose. Unless you want to write the article first, and risk it being an unwanted orphan, the best way to initiate this process is through a Query Letter. This is a letter to an editor telling them about the article. At this point it is the only card you hold so it has to be concise, informative and entertaining, leaving the editor enthusiastic about adopting your offspring.

If you are unknown to a magazine begin your letter by telling them, briefly, a bit about your writing experience and then go on to outline your proposed article. Include information about subject matter, your approach to the topic, your personal expertise in that field, any people that you will interview, approximate length and the availability of illustrations and of what type. One other thing that is worth mentioning is why you think the readers of the magazine will be interested in the story. If nothing else this shows you have researched the market.

Remember, your query letter is your sales pitch, the first chance for you to attract that all important attention. Editors receive hundreds of query letters, so work on yours until you think it is a good piece of writing. While a lot of nuts and bolts information is necessary don't be afraid to include your own opinions or a little humour. After all it is an example of your own writing style.

Growing up

Research is a word that strikes fear and loathing into many writers and I must admit that it is not my favourite part of the whole glorious writing process. However, it is really a much maligned pastime. True, a lot of it includes digging around in libraries, all too reminiscent of your schooldays when those dreaded exams were looming. Don't be disheartened; when you compare this to sitting behind an office desk for the rest of your life it immediately takes on a more glamorous appearance.

Rather than looking at it as a chore it should be seen as an asset that improves your general knowledge while also providing ideas for additional articles. When I get to the library I usually spend hours there for the simple reason that once I get my nose in a reference book I get sidetracked by all kinds of weird and wonderful pieces of information - all grist to the creative mill.

But to say that research is all reference books and encyclopaedias is like saying that politics is all honesty and generosity. In many ways it is similar to your idea generating in that it is something that you should be aware of constantly. Be inquisitive and find out as much as possible about what is going on around you and in the world in general.

For example, know who is winning

what in the sporting world, what the top films and teenage crazes are of the moment, who the latest soap stars are, and keep up with current affairs both at home and abroad. While you might not be interested in all these subjects you will be surprised how often you can use the information in your writing.

The cosmetics

All parents like to send their children out looking their best and in the case of the writer this means getting illustrations for their masterpieces, either in the form of colour transparencies or black and white prints. While a good illustration will not sell a bad article editors are much more kindly disposed towards material that comes with its own photographs and, obviously, the best way to get them is to take them yourself. As well as being personally and financially rewarding it also ensures that you get a picture of exactly what you want in relation to your article.

The first thing to do if you want to provide your own photographs is to buy a SLR (Single Lens Reflex) camera. Forget all the models that offer auto-load, auto-wind and tea-making devices as these are all just additional things to go wrong and will do nothing to improve the quality of the picture. Instead go for a reasonable quality machine with auto and manual functions and preferably a depth of field preview. As for lenses, it is best to have a wide angle lens, 28mm, and also a zoom lens of some type, depending on the shots which you plan to take. For the majority of cases a 50-135mm zoom will suffice. Choosing good quality film is also important - use Kodachrome film for colour transparencies and Ilford for black and white prints.

If you decide you don't want to, or can't, take photographs yourself then

you have a few options open to you. You could try a professional photographer or a photograph library, both of which would probably produce results but which would be very expensive. A more realistic idea is to ask a friend who is a keen photographer or go along to a photography course or evening class and ask if anyone would be interested in taking your pictures for you. The chances are that you will get an enthusiastic response since the amateur photographer is just as keen to see their work published as the amateur writer. As for payment you could either pay them a mutually agreeable sum or let them negotiate their own price with the newspaper or magazine.

Adulthood

It is always heart-wrenching when something you have cherished and loved leaves you, but for a writer this is usually offset by the joy of seeing it transformed into a published piece of literature. However, to cast it aside at this stage would be a considerable waste of time, effort and potential. Just think of all those related ideas you had when thinking up the article, the mountain of research notes, of which you may have only used a small proportion, and the boxes of unused photographs you now have. You will find yourself with a wealth of untapped resources, which can be stored in a cool compartment of your mind for next time.

Instead of chiding your offspring for creating so much unwanted mess, adopt a more constructive attitude. Go back to square one and work on another idea for the same topic. Search for new angles to develop your original idea and find more prospective markets, but most of all be a ruthless parent and get as much mileage as possible out of your tender creation. ●

TALKING IT OUT

ASIDE from your own golden prose the most important words in your article are those obtained from other people. In fact, without interviewing, your career as a non-fiction writer is likely to be extremely short.

Interviews are carried out for two main reasons in relation to non-fiction: to gain specialist information and to produce an interesting quote for your article. The first of these is the more mundane of the two but undoubtedly the more useful. As you write more and more articles and your range of subject matter expands you will need more people to explain the nitty-gritty of each subject. For instance if you are writing about the breeding habits of the Lesser Seen Toad it might be a good idea to talk to an expert on the subject instead of putting forward your own wild theories.

The second type of interview is where you want to get the comments of a person of interest, be it a celebrity or the man at the end of the road who says he saw his wife being taken away by a spaceship in the shape of the Big Ben.

When approaching prospective interviewees write to them or phone, telling them why you want to interview them and what your article is going to be about. Stress that you will go to see them at a time they find suitable, not vice versa.

Before you meet your interviewee find out as much as possible about them and prepare the questions and topics that you want to cover - you will get a much better response if you show you have done some groundwork beforehand.

As to the actual interview I prefer to use a dictaphone, if the interviewee is agreeable, since it removes any chances of misquoting. However, in view of unexpected gremlins, it is also a good idea to take additional notes by hand. While you are doing this also note down the subject's mannerisms and their surroundings as this may also be incorporated into the final article.

Finally, make sure that you keep your own conversation to a minimum: you are there to hear someone else's quotes, not your own.

Keeping in the picture

If you are totally at a loss for photographs try a picture library. There are over 200 members in the British Association of Picture Libraries and Agencies and if you can't find the photo you want among them (they have over 200 million in total) then it probably doesn't exist. Full list of names and addresses in *The Writer's Handbook*.

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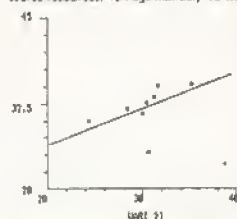
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Comm and get it

How would you like to have access to hundreds of free programs to run on your PCW? Fancy technical advice, on-tap, all day and everyday? Comms offers just this: Tim Smith goes baud walking

Hundreds of free programs? Endless advice? You're thinking that maybe we're overstating the case. If anything we're doing the opposite. Comms, which is short for communications, has the ability to open up vast new areas of action for you and your faithful PCW.

Aside from the ability to 'download' Public Domain software and use help-lines, comms also allows you to access databases, make friends (they need never see the fact that you've not shaved or got out of your dressing gown!) and learn about your machine.

The idea that comms is incredibly complex and requires technical skills should be thrown out of the window here and now. Think about it. Do you really need to have an in-depth knowledge of PAL (Phase Alternation Line) which is the 'television standard' for the UK, in order to watch Blind Date. Do you need any knowledge of it at all? Equally, how many people know how a telephone actually works when they use it to 'phone Great Aunt Gwendolen in Ulan Bator?

Comms on the PCW can be as simple as word processing, databasing, spreadsheeting or any of the other programs which you could use. The only off-putting element to it is the notion that you are communicating with the outside world and that one wrong press of a key might crash a system. This will not happen; the chances of accidentally logging-on to the NATO Intercontinental Missile Launching System and triggering off World War III are less than the chances of winning the pools three times running.

Hackers, the less savoury end of the comms world, spend months of eye-aching boredom trying to get into the local branch of the Bagworth and Barnsley building society in order to fiddle a few pounds, so don't worry about accidents. The benefits far outweigh the possible problems.

Comm hither

So, what do you need to get started? Quite simple really. You will require the following four pieces of equipment; an RS232, otherwise known as a Serial interface to plug into the expansion port at the back of your PCW. A 'modem' to

act as an interpreter between the PCW and the outside world. Thirdly, comms software. Finally, a serial cable (most decent modems will come with one of these bundled) to connect the modem to the interface. We'll go into the interface, modem and software in detail.

The interface

This piece of equipment is the single most useful addition you can buy for your PCW. Interfaces come in the form of boxes (about 5 by 4.5 inches – 13 by 11cm) of circuit boards with two sockets – one for the serial line and one for the parallel. An interface fits onto the expansion card at the back of your PCW.

This expansion card is to the left of the printer port on the 9512 and below the printer port on the 8000 series. Interfaces for the PCW are of the RS232 family. This is an information exchange standard and is common to most personal computers such as IBM PC compatibles, PCWs, the Amstrad CPC, Commodore Amiga and Atari ST, (the good old Mac of course uses the RS422). The command structures are the same, but the configuration of the pins in the cable heads differ). With comms you need an interface in order to connect your PCW, via a serial/RS232c cable, to modem. Without it there would be nowhere to plug the cable. Simple.

The modem

The modem is the piece of equipment (hardware or peripheral in compuspeak) which translates the data (information) sent or received over telephone lines.

Modems range in price (and complexity of functions) from around £100 to £1000. The more expensive come with facilities such as auto-answering, autodialling, number stores and the ability to accept many 'baud rates' and 'emulations' (see the next page for jargon explanation).

The modem connects to your PCW via the serial/RS232c cable and interface. It then sits on your desk awaiting commands from you via the software. Most modems come with a range of LEDs which tell you that certain signal criteria are being met. The affordable modems (that is those which come in at under £250) basically just sit there, waiting to send – they have to be

prompted to receive.

The software

This is an area of much debate in the rarified atmosphere of the comms 'expert'. We, however, only need look at it as if it were any other program to run on the PCW. Its purpose is to control the modem and hence send and receive data. He, or she, will spend hours telling you that a comms program and modem are no good unless they have Viewdata Emulation, run at 2400 Baud in Asymmetric Duplex mode with built-in error correction and Analog loop-back in just the same way as a hi-fi 'expert' will drone on about more woofer up your tweeter with cross-over and parallax, dual parametrics. Don't listen to them; while the latter misses the fact that a record player's purpose is to play music, the former misses the fact that all you want to do is get into contact with other people.

Good comms software can cost nothing and be friendly to use (such as Mex in the Public Domain). It might lack many facilities and options but the basic job of telecommunicating will be done. Just look at Sage's Chit-Chat (£87 + VAT) or the Sage Communications pack – modem, software and cable for £225 + VAT) or PMS Dialup (the 8000 Plus office's choice of software which costs £89.99). It is more than likely that, for your first foray into comms, you will merely want to browse through the various bulletin boards which hold cheap software for the PCW. In this case you will want a minimum of frills and a maximum of efficiency.

The most important point to look for is the fact that the software is compatible with your chosen modem, that it is capable of handling 1200 baud (this is the standard rate for most bulletin boards) and that you can understand the documentation.

All together now

Once you are kitted out with modem, cable, interface and software it's time to log-on. This is where the jargon really does step up its efforts to form a jungle of almost unrelieved impenetrability. On the next page, therefore, we are proud to present the definitive 8000 Plus English-Comms Dictionary.

Stock taking

The International Stock Exchange (ISE) is known for its hi-tech computer trading. For many years now it has settled the everyday securities deals using a mainframe system called TALISMAN. Each evening settlement departments of the dealing firms send in the details of the day's dealing. The ISE itself has a department called Buying-In and Selling-Out (BISO). This small department polices the market. If a trader has made a deal – for example, has promised to deliver 50,000 shares in Conglomerated Dingles by Wednesday week but does not deliver, then the BISO department go 'into the market', buy the relevant shares and charge the offending firms. How do they enter their deals at the end of the day? With a modem of course!





Jargon busting

One of the most deeply off-putting points about comms is the amount of jargon used. The language has been built up over the years, and although it might seem deliberately obfuscating (all right, confusing), the terminology does serve a purpose. It is the task of 8000 Plus to translate this argot back into English so that you can then dive head first into the productive and enjoyable world of comms. So, here are a few useful words and phrases translated:

Serial

(as in Serial Port, also RS232c)

This deals with handling information in a series of small electronic packages. These are sent and received, one after the other, in order. The opposite to this is Parallel (as in Parallel Port, also Centronix) which deals with handling information in a single lump. It should be noted that Comms will always be carried out from the Serial (RS232) Port of the PCW. This means that small packages of information (data) can be sent down the line. If there is any 'noise' (corruption on the line) then using Serial transfer ensures that only packets of data are corrupted rather than an entire file or message. With Error Correction, the corrupt parcels are retransmitted so that you, the user are not even aware that they ever existed.

Baud Rate

(pronounced bored or bawd, people disagree)

Named after J M E Baudot (1845-1913) a French pioneer in telecommunications. Basically, Baud Rate measures the speed at which data is transmitted (for the more technical among you 1 baud is equivalent to 1 half-dot cycle in Morse code). Roughly speaking, in computer terms, 1 Baud is equal to one bit per second (BPS). You will find that your modem and software can transmit at various baud rates such as 75/1200 (which means that you send data at 75 baud but receive at 1200 which is the standard Viewdata rate). Other Baud

rates are 300, 1200, 1200/75, right up to 2400. The only thing to bear in mind is that you should always synchronise your Baud rate settings to those of the computer you are in contact with. (For the more technical among you, when using binary the Baud does not just include sending raw data - there are also other elements which need to be sent - 1 baud is not usually exactly equivalent to 1 bit per second)

Protocol

(as in Kermit, XMODEM and ISO)

As the name suggests, a Protocol is a set of rules which is understandable to computers when communicating data. The only thing you really need understand at this point is that your PCW should always operate within the same Protocol as the device with which it is in contact.

Parity

(also Parity Bit)

Yet again another incredibly complex piece of computerese which basically means checking whether or not the information sent has been corrupted or not. A Parity Bit has a value of 1 or 0. Parity can be set at Even, Odd or None. For example, if the setting is Even a Parity bit is added to every word sent in the following manner: if a chunk of information is in the binary form 001011, then a Parity Bit of 1 is added to make it Even (001011 + 1 = 0+0+1+0+1+1+1 = 4 positive bits =

Even), a Parity Bit of 0 would be added to make it Odd (0+0+1+0+1+1+0 = 3). This gives each chunk of data (known as a 'word') the same number of bits (in this case 7). When the information is sent, the Parity Bit is checked by the receiving computer (or device). If it isn't there, then the data is (ideally) re-sent.

Stop Bit

This, quite simply, is a bit sent at the end of a character bit, to tell the receiving device that the character has 'stopped being sent'.

Emulation

(also Terminal Emulation)

Again, as the name suggests, this is a method which allows your PCW to emulate other devices. Emulations such as TTY (code of Teletype) and Viewdata are common. Emulation basically means that different kinds of computer or device can 'pretend' to be a single other device and hence talk to each other. If this principle could be put into 'real' life, then an Englishman who spoke no Spanish could speak to a non-English speaking Spaniard by both of them pretending to speak Dutch (it's easy really).

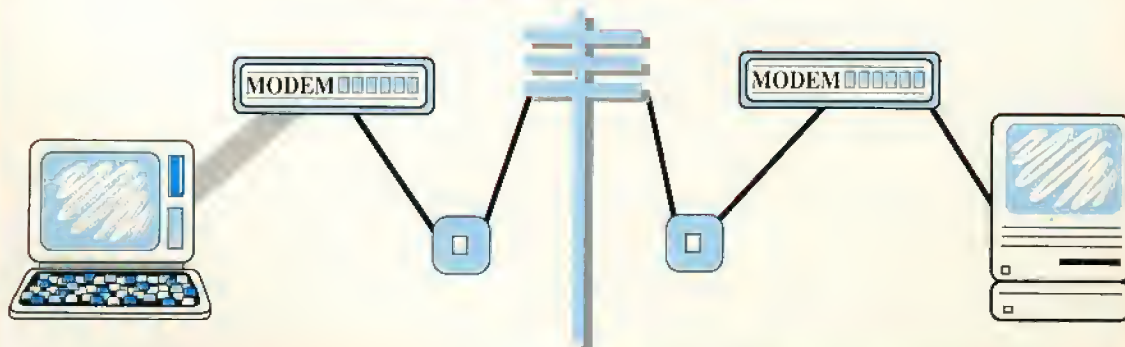
Download/Upload

You can translate these roughly as 'Take' and 'Give'. Once you have logged on to your first bulletin board service (BBS) you will want to get hold of some of the free Public Domain (PD) software which is available. These files are stored in an area on most BBSs which is defined for Downloading or Uploading. Basically, you will be given the option to Download files - take files 'down' from the BBS and save them on your PCW. Alternatively, you will be given the option to Upload - transmit files 'up' from your PCW to the BBS. Every piece of comms software comes with its own down and uploading procedure but generally all you need to do when downloading is tell your PCW the name of the file you want to save and hit the correct key. When you are uploading, you tell the BBS the name of the file you want to give and press another key.

Baud boy

J M E Baudot was one of those inventors who nearly got it right but not quite. In or around the year 1877, at the age of 32, he came up with a machine for telegraphic transmission. He also designed a code, known modestly as the Baudot Code, to be used with this apparatus. This is not bad for a 32 year old. What was bad was the fact that the Baudot code never came into use. It was designed for a normal, five-fingered human operator and each letter was a given a five-figure code. Now this was all well and good until you realise that 2 to the power of 5 only gives 32 combinations (coincidental eh?). This was a problem as things like figures and punctuation were left in the wilderness. The solution was found by adding another separate code defined as LTR (letters) or FIG (figures). Still Baudot was unlucky and both his machine and code merely became spring boards (not in the literal sense) for other forms of code such as the Murray Code. Happily though, after all this labour Baudot is still remembered - albeit in an abbreviated form - for the Baud Rate.

As easy as a 'phone call



Making contact with other computer users really can be very simple once you have the necessary equipment. On the left of this diagram we see a PCW linked to a modem by way of a serial cable. The modem connects to the 'phone socket and sends a message over the wires to the receiving machine.

Accessing a typical bulletin board

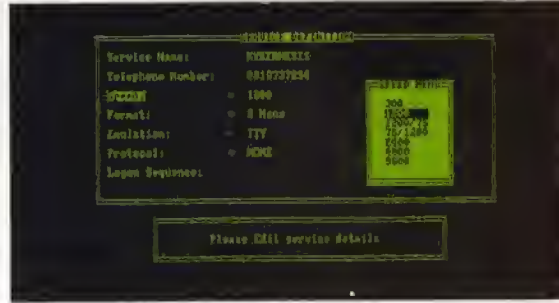
Once you have a rough idea of the jargon and you've bought or borrowed a modem, software and a cable, you'll want to put all the theory into some kind of practice. In other words, you'll want to log-on. As soon as your PCW is set up to communicate with the outside world many options will open out to you; you can take out a subscription to a full-blown, industrial strength system such as Telecom Gold. This entails paying out a yearly subscription which will secure you a pass number and access to the system. Within Telecom Gold there are literally hundreds of

different areas to look at. The only unfortunate thing is that each of these additional areas will also have a subcharge. Another, more popular and cheaper option is to log-on to one of the many Bulletin Board Services which fill the telephone lines and are run by enthusiasts. In this case all you will be paying out is a telephone bill. Most of these boards are run by and logged-on to friendly amateurs. The reason for the existence of private Bulletin Board Services (BBSs) is to provide open forums and software exchanges for users. A great deal of Public Domain

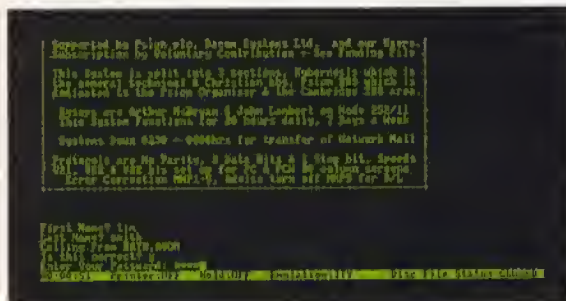
software – programs which are free – can be found on most boards. People bring programs ranging from spreadsheets to printer drivers back from the US or Europe or even write software themselves. This means that when they take software (download) from a BBS they can also give (upload) and so the board grows. So, how do you go about joining in and gaining access to the information which is out there? The following sequence gives you an idea of how easy it can be. In this case we decided to log-on to a board known as Kybermesis (0816737294).



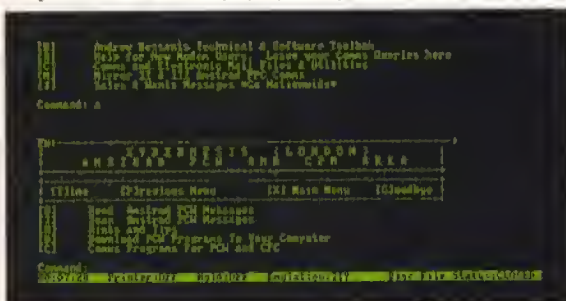
The PMS Dialup 'front page'. This shows a number of entries for PCW related bulletin board services around the country. Notice the cursor is over Kybermesis. However, before connecting we should check some details



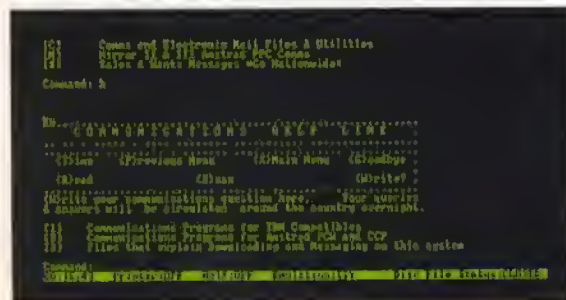
Creating and amending service details is simple. Once you have the baud rate, emulation, 'phone number and protocol you're ready to save the service for later use. Bulletin boards usually have no log-on sequence to worry about



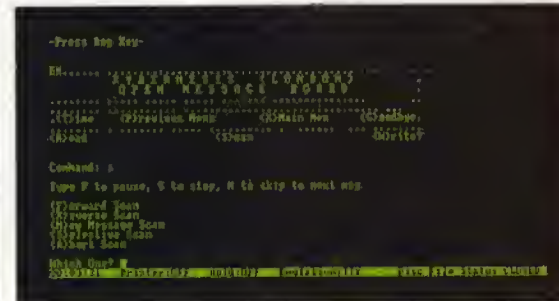
Once you have entered those details (this is carried out differently by other comms software but the principle is the same), then it's time to log on and give some details to the Sysop (System Operator) of your chosen BBS



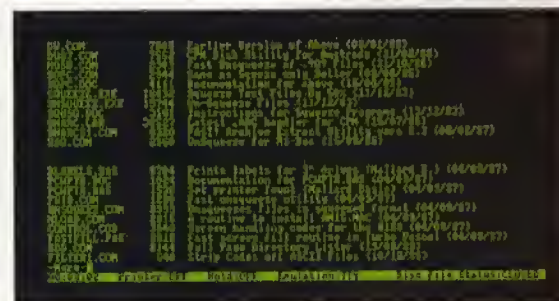
The next thing to look for, from the main menu, is the area specific to your PCW. This should be clearly signposted on most boards, but if it is not then try looking for Amstrad or CP/M. Failing that, try asking for one!



Having problems or want some more advice on using comms? Then ask the experts. Most decent BBSs know that they have new users who might get lost and so provide areas for technical help. If in doubt try typing a "?"



One of the first areas to look for when you've registered, is the message section. This will give you a feel for the board and the people who make use of it. Leave a "Hello, I'm here" message to introduce yourself



Once you have found your board you might like to glance through the available Public Domain software. In the case of Kybermesis there is a great deal of useful stuff for PCW users. This can be down-loaded for free

There we are then, the basics of Comms have, we hope, been opened out for you. There is much more to learn but that can best be achieved on-line. One point which you should always bear in mind is to save reading on-line matter for later. Many BBSs will allow you to mark files for retrieval and downloading - make use of this. Ideally you should only ever need to spend ten minutes actually logged-on. Use this time to gather information. This is equally true when leaving messages; write these before logging on (save them in ASCII form) and when the time comes to leave a message all you need do is 'upload' your saved file. Comms is a highly rewarding element of your PCWing experience. It is also a community of mutual aid and assistance. So, if in doubt, ask; there will be help. ●

Re-viewdata

You will often see the term Viewdata thrown around the place. This is a form of 'emulation' which enables you to access systems such as Prestel and also to get the most from some of the more professional bulletin boards or specialised databases. Viewdata works on a screen of 40 characters by 24 rows – the PCW's native screen is 31 by 90 (using SET24X80.COM changes the screen to, you guessed it, 24 by 80). Consequently you will need to have Viewdata emulation from your software. Without it all you will get on your screen is garbage.



Yellow Fever!

In business?

If you are wondering about taking advertising on Electronic Yellow Pages, you'll need the advertisers information pack. Contact ITT World Directories (UK) Ltd, Electronic Yellow Pages, 10th Floor, Edgbaston House, 3 Duchess Place, Birmingham B16 8NW.

Andrew Bibby takes a look at the Electronic Yellow Pages - a development which would have had J R Hartley leaping from his armchair

Need to find an auctioneer in Auchtermuchty? Or a dry cleaner in Dover? A nursery and creche in Nelson and Colne? The answer could be to let your fingers do the walking over your PCW keyboard, and make use of the new Electronic Yellow Pages (EYP) service.

The 66 volumes of the familiar Yellow Pages directories together hold the names, addresses and phone numbers of almost all the businesses in

Britain. The directories themselves are compiled from the central database held by Yellow Pages (yet another one of British Telecom's many divisions), which currently contains about 1.8 million records.

It's a valuable source of information, and it's now being opened up to on-line searches from the public, through Electronic Yellow Pages (EYP). Provided you've equipped your PCW with a modem, an RS232 interface and

some comms software, you'll be able to dial up direct, or reach the database via Prestel.

The launch of EYP was originally pencilled in for the end of May this year, but last-minute software bugs (yes, the usual story) resulted in a delay. At the moment, there is still no firm news from British Telecom (BT) of their new public launch date. However, 8000 Plus was able to seek a sneak preview of the service. In the words of a spokesman for Yellow Pages, "We're in the last stage of debugging now, but we don't want to launch until everything's perfect." Bugs permitting, EYP should be up and running in the very near future.

Prestel for action?

There are some people, of course, who say that BT should have done something like this years ago. BT's vidcotex (viewdata) service, Prestel has had a somewhat chequered history since it was first launched back in 1979.

By comparison, Minitel which is the equivalent French service, has been very successful. The French telecommunications authorities gave away many hundreds of thousands of Minitel terminals, originally to provide a more efficient service for subscribers wanting to check other phone numbers. The idea was that, instead of consulting the telephone directory, you could call up the information on your Minitel screen.

Unfortunately, BT are not planning to give away any free PCWs and modems. However, they are making their new EYP service very cheap and relatively straightforward to use. In fact, EYP marks the arrival of the first major on-line database in Britain which won't cost you an arm and a leg every time you want to consult it.

Up to now, on-line data searching

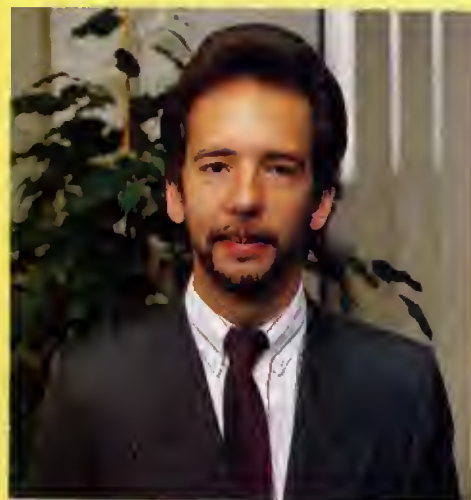
IN THE BEGINNING

Mike Rowley is the person with the job of ensuring that the Electronic Yellow Pages service is safely launched.

As Head of EYP, based in the Yellow Pages' head office in Reading, he has been supervising both the technical aspects involved and, perhaps, more importantly the business side of the project.

"I've been with Yellow Pages for nearly five years, and I've been involved in the project throughout that time," he says. He joined the EYP team after experience in both computing and marketing.

The origins of EYP go back much further than Mike's five years with the venture, however. "We've been working on on-line publishing for many years," he explains. "We were on Prestel in the early days, back in the late 1970s."



Head of EYP Mike Rowley juggles both the technical aspects of the launch as well as the business side of the project

The early Prestel experiment didn't continue, but since 1987 Prestel has been carrying a pilot EYP service, covering only parts of London and the Home Counties. "The aim of the trial has been to establish what both users and advertisers want, and how they feel about the classified advertising," says Mike.

His aim, he says, is to make EYP easy to operate. "The aim is to be user-friendly. Obviously, the first people who will use it will be existing on-line users. We're saying to people, if you're currently using this facility, here's a new service for you. We're not trying to stimulate the sale of terminals. But we do hope Electronic Yellow Pages will appeal to most people."

He cheerfully runs through the statistics involved: 1.8 million records are on the database at the moment, for example. But fortunately, he hasn't had to arrange for the database itself to be set up. "Yellow Pages has that already, as a core database for the local directories. We haven't had to have a room full of typists!"

has been expensive, especially where business information is concerned. It's not unusual to have to pay several pounds for just a minute's on-line search time, and inevitably, that's meant that only commercial users have tended to make use of the technology.

Easy access

If EYP is successful, it could make on-line searching a much more familiar part of everyday life. It's quite possible, too, that in due course BT's ordinary database of subscribers (the one which Directory Enquiry operators call up when you ring in to request a 'phone number') may also become publicly available on-line – though as Yellow Pages are quick to point out, that's the responsibility of a separate part of the BT beast.

So how do you get access to the Electronic Yellow Pages? There are three routes in. The easiest way is simply to set up your PCW comms software with the correct details for it to dial direct. The number to call is **0345-444444**. Speeds of up to 2400 baud are accepted by the system, as are most normal parity settings. It's best to set up your software as for a viewdata service like Prestel. Happily, even if you're logging on (calling) from the Outer Hebrides the fact that the system uses the 0345 prefix means that you will only be charged at the local call rate.

The second method is only available to you if you are a Prestel subscriber. In this case, you can enter via a gateway from Prestel. The relevant front page is *3813#. Yellow Pages say that the normal Prestel time charges will not be levied while you are connected to the EYP gateway. So once again, it should only cost you the price of the call to your local number which in this case will be Prestel 'node'.

The third option is to use BT's own dedicated data transmission facility called the Packet Switch Stream service (PSS). You can call EYP using a special Network User Address (NUA) and better still, you can also arrange for your use of PSS to be reverse charged. The NUA you'll need is **234273402002**.

Search me

Once you've logged-on to EYP, you'll be asked to start a search by typing in the location of the service which you require.

The 'location' can be a village, town, county or even a postcode. If you're imprecise – say, you enter NEW-CASTLE – you'll be offered a choice of possible, but obviously related, locations for you to select. Did you mean Newcastle-upon-Tyne? Newcastle-under-Lyme? or was it really Newcastle Emllyn you had in mind?

As an added refinement, you'll not only be asked whether you're looking for suppliers who actually have premises in the area you've chosen but also whether suppliers who may be based elsewhere but who operate in your area will do as well.

THE GUIDE BY YOUR SIDE

© 1990 British Telecom Ltd

One of the most obvious ways of popularising the new Electronic Yellow Pages (EYP) service is to make it easy to use. With this in mind, British Telecom (BT) have produced a glossy, professional-looking 12 page ring-bound user manual. It won't drown you in a sea of jargon either. Not only does the booklet show you what you need in order to access EYP, it also tells you how much it's going to cost. A fully annotated screen by screen walkthrough has also been included. Call 0734 506506 to order your copy.

© 1990 British Telecom Ltd

Normally, you'll then enter the type of business you're interested in. The database will automatically accept about 2,800 business classifications so that, unlike the traditional directories, it won't matter if you enter, say, 'lithographers' instead of 'printers and lithographers'. Alternatively, you can choose to search by company name, or product.

At this stage, you'll be informed how many companies have been found which actually match your two requirements (location and business type). The command ?V allows you to see short four-line entries giving the name, address and phone number for each of your chosen companies.

You can also decide to increase the geographical area of your search by using the command ?X (it stands for 'eXpand location'). In fact, if you still can't track down a company offering what you want, it's even possible to extend your search to the whole of the United Kingdom.

Another method by which to extend your search to similar types of business is with another command; this time it's ?R (which stands for 'Related business types').

Read all about it

These are all helpful features. One problem with EYP, however, is that when you come to view the companies which the database has found for you the process can take quite some time. The limitations of the computer screen mean that only three companies can be displayed at a time. This means that if you've chosen a popular business in a large area (like PUBLIC HOUSES and BIRMINGHAM, perhaps), you might have to

be prepared to settle down for a long session in front of your PCW.

EYP may be a useful public service but, like its parent directories, it has been set up as an advertising-led initiative. In other words, British Telecom hope that businesses will be as keen to advertise electronically as they have been to take out display space in the local directories.

A smart promotional pack has been prepared ("...advertising on EYP couldn't be easier... our professional team will help you to make the best of your advert..."). It comes complete with the claim that over 4.7 million people have potential access to the service.

BT have no doubt checked their statistics, but the actual number of people using on-line services in this country (compared to the United States for example) is still very small indeed. It appears that BT will have to do some adroit marketing work if they are to succeed in making the public aware of, and keen to use, their new service.

However, even when people are using EYP they won't necessarily want to wade through the advertisements. The standard advertising package (which incidentally costs £16.50 a month) provides a company with five frames of text in which to promote their services. It seems more likely in practice that most users will drop into the first frame only, before returning to the main listings.

Commercial response might not be as enthusiastic as planned. If the advertisers don't come forward then British Telecom may begin to reassess the whole service. That would be a pity. EYP is a good idea, with enormous potential. Unfortunately, however, good ideas don't always catch on. ●

Help at hand

Most on-line databases don't leave you to sink or swim alone – and EYP has very sensibly followed the custom of providing users with a telephone helpline, staffed by real non-electronic human beings. The number to call is Reading (0734) 506506.

EYP have also produced a small ring-bound User Guide which it's worth obtaining. Contact the helpline to obtain your copy.



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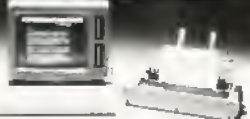


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Book Look

Sophie Lankenau
makes some welcome
introductions

WHAT TO DO WHEN A MICRO LANDS ON YOUR DESK

by Glyn Moody & Manek Dubash £14.95
Published by Computer Weekly Publications
Tel : 081 661 8787

8000 PLUS VALUE VERDICT = Excellent
ISBN 1 85384 021 1

The back of this book carries the rather lofty assurance that "The book has been written by computer experts, who explain in everyday language how micros work, deliberately avoiding confusing computer jargon". If an overwhelming sense of *deja vu* engulfs you, do not be alarmed. Any veteran of beginners' guides will be used to this kind of claim, and the usual course of action is to read on and decide whether it is a valid one. Read Moody and Dubash's offering to the uninitiated, and the claim is validated in the extreme.

Computing is a literary market swamped by machine and application-specific publications. How refreshing it is to come across a tome that gives a general overview of the subject yet maintains enough structure to keep the reader entertained and informed. The spontaneity implied by the title is borne out throughout the book, which caters for anyone new to a computer-dominated environment.

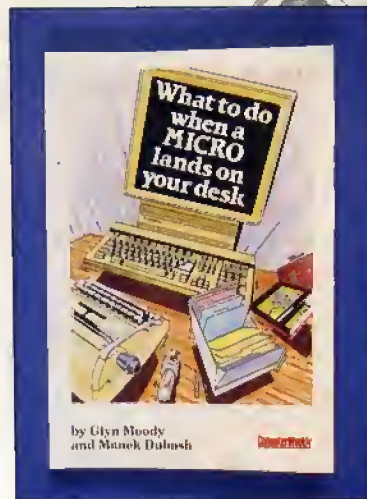
The first chapter provides a "painless introduction" to the main concepts involved in computing. The elements of the micro, from discs and printers through to software itself, are listed and explained and the chapter rounds off with a look at the implications of having a computer in the office or at home. It is here that the question of data security is raised,

Software and Hardware enjoy a chapter each, and examples of both are given where necessary. The former explains word processors, databases and communications programs, and includes screen dumps from example products in each case. The hardware chapter explores everything from monitors to mice.

There is a useful section on "Living with your micro" which, as the authors advise, is worth re-reading several months after the equipment is installed. It warns against the dangers of conditions such as repetitive strain injury, and how such health hazards can be avoided. The possibility of radiation from the monitor is dealt with, and the authors are shrewd in pointing out that although this is an area of concern, millions of people sit close to a television set without the 'experts' creating the slightest outcry.

This book is a general look at computing, so sections such as "Every day with MS-Dos" might bemuse the PCW owner, since CP/M is the native operating system for their machine. However, it is worth reading the chapter just the same to gain knowledge of how other computers work.

A look at the evolution of business computing rounds off what is frankly a superb publication. Chapters are punctuated with margin notes, and finished with economical summaries. This is the kind of book which every newcomer to computing should have close to hand; it is packed with information, intelligently written, and if the thought of computing brings you out in a cold sweat, your worries could soon be over. ●



LOCOSCRIPT 2 WITH LOCOSPELL, LOCOMAIL AND LOCOFILE

by Ian Sinclair £10.95
Published by BSP Professional Books
Tel : 0865 240201

8000 PLUS VALUE VERDICT = Excellent
ISBN 0 632 02861 0

Ian Sinclair has become something of an industry standard when it comes to producing tutorials on word processing. The popularity of his earlier book, *LocoScript 2* on the Amstrad PCW 8256/8512 and 9512 first written in 1987, has led him to bring out this second edition, with extra sections on LocoMail, LocoSpell and LocoFile.

It is stressed from the outset that the book should be used in conjunction with the manual. This eliminates the necessity of explaining technical jargon every time it is used; it doesn't, however, make the book difficult to understand. Although the reader might be alarmed at the proximity of the section on direct printing to the contents page, the author has also emphasised the importance of practical experience in the learning process. If you follow the instructions, you will quickly see how direct printing serves as an excellent way to become familiar with the difference between the typewriter and the word processor. Screen dumps illustrate the stylistic variations which *LocoScript 2* offers (such as italics, line and pitch settings and so on) but which are not apparent on the actual screen.

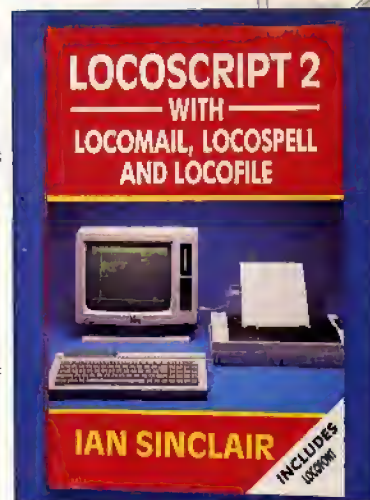
The third and fourth chapters are devoted to the production of a letter (including sub-sections on templates

and simple editing) and how to print that letter using various printer options. More advanced editing, involving the use of blocks and stock phrases is dealt with in a section entitled 'Boilerplating'. The name derives from the manner in which a supply of phrases can be drafted in to build up a document little by little.

The sections on LocoSpell, LocoMail and LocoFile are brief; space does not permit a thorough exploration of the many capabilities which each utility has to boast. As the author points out, "a full guide to LocoMail would require a book to itself". What is on offer though, is an outline of the basic functions of each 'extra' together with illustrated examples of how to carry out simple functions. For example, the LocoFile section tells you how to set up an index, and how to set up each record in a card form. The method of editing these cards is also explained.

There is an additional chapter given over to LocoFont, the utility which allows you to determine the 'design' of the text that you produce. The book finishes with a very useful 'Help' section. It is set out in terms of a 'how to' guide, with end results listed as mini headings, and relevant menu commands detailed underneath. As these are arranged in alphabetical order, troubleshooting becomes quick and easy procedure.

Ian Sinclair has produced the kind of manual which will always enjoy reader loyalty. With the plethora of *LocoScript* tutorials on the bookshelves, it is encouraging to see one which stands out from the crowd. ●





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Son of LocoScript

Heralded by prophecy of biblical intensity – now, at last, it's here.
Steve Patient brings you the word on LocoScript for the PC

The PC needs another word processor the way a minute needs eighty seconds. For Locomotive to leap into a saturated market smacks of hubris, and yet they claim to be reacting to market forces. They say their customers want LocoScript on the PC: well they've got it.

It's worth stating immediately that LocoScript PC is not going to win many converts from among existing word processor users on the PC – and Locomotive must know it. Their market is the near 1,000,000 folk who are already familiar with the product via the PCW, who, for one reason or another, find themselves in front of a PC and needing some words processed.

Most word processor users always have a soft spot for their first amour, and through many LocoScript lovers will have been forced to move into the PC world they haven't necessarily become reconciled to a second, shotgun marriage.

For these PC users, LocoScript PC will be a delight. In almost every way it is the same program as LocoScript 2. Moreover, it comes complete with LocoFile, LocoMail and LocoSpell (plus word count) built in.

Open the box

For your money, you get an imposing, green boxfile with three ringbound manuals – tutorial, reference manual, database and mailmerge manual – a 175 page printer manual and an installation manual. There are also four 360K 5.25 inch discs and two 720K 3.5 inch discs. Locomotive have gone out of their way to make the installation as simple as possible, despite the variety of PC configurations.

LocoScript PC can be installed and run (from two 360K discs) on a PC with a single 360K floppy disc drive – but you will hate using it. A 720K disc is practical and nice for users of portables like the Amstrad PPC. Two-drive machines are even better, but a hard disc will make LocoScript PC extremely happy. This is coupled with the fact that files created on the PCW with LocoScript 1 or 2, Locomail or LocoFile, can all be used without alteration once transferred to the PC (see margin notes). It's almost fun to change machines.

On a basic XT PC (the least powerful and least expensive kind), this version of LocoScript isn't much faster than on the PCW. This is partly due to the way it works internally (Locomotive argue that while others are faster, theirs does a better job) which has apparently been carried over to the PC. The rest is due to the way it handles the screen.

Get the picture

Rather than run in the fast but inflexible text mode of PCs, it runs by default in graphics mode. This has been chosen for the number of interesting possibilities it

opens up to the programmers. The most spectacular of these is that graphics mode allows effects like italics, bold, shadow text, inverse text and so on to be shown on screen without distracting codes. But the effects stop there. Locomotive haven't gone all the way and shown proportional spacing or different point sizes on screen.

There are other possibilities, too. On a PC with a Hercules card and mono monitor, it enables LocoScript PC to run in 92 columns just as on the PCW. On all other graphics adaptors you're restricted to 80 columns. However, there

The missing link

Get those files from your PCW to your PC with Locolink, a PC disc, a PCW disc and a suitable cable plus instructions in how to use it. At just £24.95, this has to be the cheapest way of transferring those priceless words.



Visible style ...

File Name	Size	File Name	Size	File Name	Size
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1 shown	186k	16X1.SCR	15k	BAGGINS.LET	2k
available	19M	6X1.SCR	8k	BETH.1	1k
		8X2.SCR	8k	BIGGUNS.DAT	2k
		HM1.DRV	2k	DATAFILE.000	6k
		INSTALL.DRV	3k	DOCUMENT.000	2k
		LQ24.DRV	4k	NEW.DOC	14k
		SETTINGS.HSC	1k	PCWTEXT.100	10k
		UK.MBD	3k	STEVE.LET	2k
9 shown	55k			TEMPLATE.LET	1k
available	19M			TEST17	14k
				TEST1DOC.000	3k
				US.1.DOC	2k
				US1.DOC	1k

1/ The Disc Manager screen looks much the same as it did on the PCW – but is trying to reflect a completely different underlying disc structure. The best way to use it is to tell LocoScript not to look at most of the disk.

File Name	Size	File Name	Size	File Name	Size
ENGLISH.DCT	186k	14X1.SCR	13k	BAGGINS.DAT	6k
1 shown	186k	16X1.SCR	15k	BAGGINS.LET	2k
available	19M	6X1.SCR	8k	BETH.1	1k
		8X2.SCR	8k	BIGGUNS.DAT	2k
		HM1.DRV	2k	DATAFILE.000	6k
		INSTALL.DRV	3k	DOCUMENT.000	2k
		LQ24.DRV	4k	NEW.DOC	14k
		SETTINGS.HSC	1k	PCWTEXT.100	10k
		UK.MBD	3k	STEVE.LET	2k
9 shown	55k			TEMPLATE.LET	1k
available	19M			TEST17	14k
				TEST1DOC.000	3k
				US.1.DOC	2k
				US1.DOC	1k

2/ On the least expensive monitor type, mono Hercules, you get the possibility of 43 line text. The default on Hercules is 25 line text as shown here. Locomotive use their own, attractive screen fonts in graphics mode.

They could have been contenders

LocoScript isn't the only familiar word processor available on the PC. Protext has been there for several years (and on the CPC, the Amiga and the Atari), WordStar is also strongly represented, and is currently one of the more powerful word processors you can buy for the PC – a fact reflected in its high price.

is a trade off; on a PC in graphics mode more lines can be shown. With a Hercules adaptor you get the choice of 25 or 43 lines; the same with an EGA adaptor. On a VGA system you get 25, 30, 43, 50 and 60 lines – virtually a complete page if you don't mind squashed letters.

The one really obvious difference between LocoScript 2 and LocoScript PC is in the way the Disc Manager works. The PC doesn't have user groups, it has a tree directory structure. This is more flexible than LocoScript 2's user groups but it can be harder to find your way around.

Colour coded

In the edit screen, the PC keyboard is less intimidating; like the PCW, it has function keys and these serve the same purposes. The only really bad decision is sticking with the plus and minus keys for toggling codes on and off. On the PCW these are ideally placed for a touch typist. On the PC, they are on the far side of the numeric keypad – as far from the home keys as possible. Alternatives to these (perhaps with the [ALT] or [CTRL] keys) would have been useful for real typists.

There are several good aspects to

Badly managed

In their efforts to maintain a complete one to one visual relationship between LocoScript 2 and LocoScript PC, Locomotive have produced a confusing hybrid. The Disc Manager is unsatisfactory. Although it looks familiar, it can be slow and awkward moving around a hard disc. Locomotive argue that since you can make directories invisible to LocoScript PC this is irrelevant, but what's the point of a disc manager that doesn't let you manage discs efficiently unless you make most of it invisible? In this one area Locomotive would have been well advised to change the look of LocoScript PC to better reflect the way the PC's directory structure works. However, at least file-tagging has arrived – groups of files can be tagged for moving, copying or deleting en bloc.

Locomotive are well aware of the directory problem and have made some efforts to alleviate it. The [Home] key can be made to return you from any directory view to a pre-set one, so you can't get lost; on hard disc machines, LocoScript PC will remember the current directory view between sessions. Even so, finding a barely-remembered file in an unknown directory, is easier done outside LocoScript PC.

Since the PC keyboard is quite different from that on the PCW, there is the added confusion of trying to find unfamiliar keys to do an unfamiliar job. It all adds up to an irritating introduction to the product.

LocoScript PC. For instance, it now supports colour. This is on the [F6] Settings menu (along with the menu to alter the screen mode from various graphics displays to real text mode). Locomotive have come up with a fun colour menu that allows you to interactively play with the screen colours and

see the effects as the changes are made.

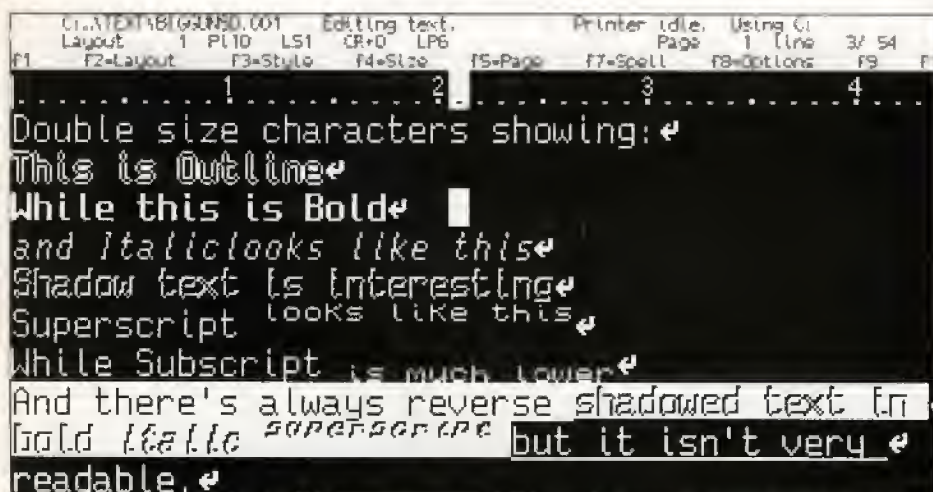
There are other concessions to the PC world. Documents can now be imported and exported in the near ubiquitous WordStar file format as well as ASCII and DCA (IBM mainframe revisable-form-text format supported by many PC word processors). Locomotive are nothing if not thorough. In their WordStar conversion they don't just convert the main text and embedded codes, but add all the page formatting in the form of dot commands so that it will print out properly.

Starting over

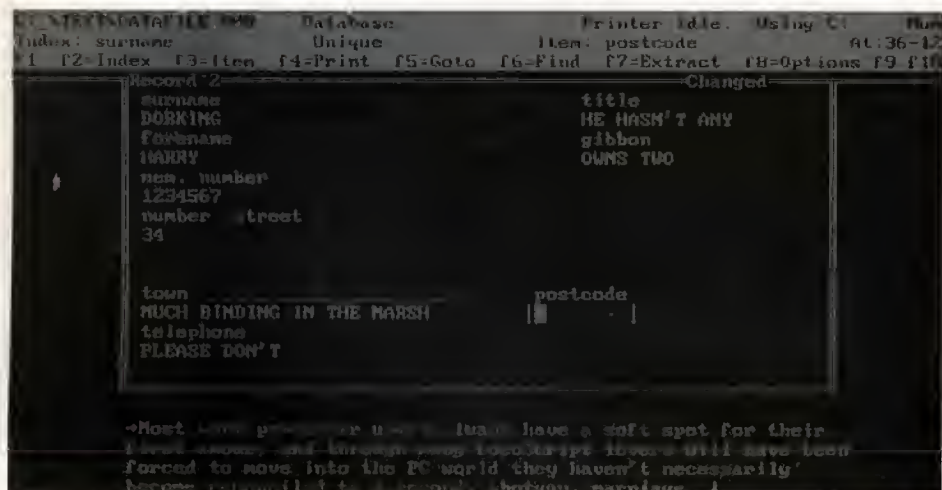
The way printers are handled feels better than it did on the PCW, where support for other printers always appeared to be bolted on. Since there is no built-in PC printer, the way LocoScript PC integrates printer drivers now feels a lot more consistent. Adding and removing them is simple. Moreover, the different abilities of printers, fonts and pitches, for example, are presented clearly and handled intelligently when documents created for one printer are printed using another.

PCs are more powerful than the PCWs, yet little advantage appears to have been taken of this power – while the hardware platform is better, you're still looking at virtually the same level of software functionality. LocoScript still appears to spool a 20K document to disc when going from top to bottom and back again, further slowing things down. And most users won't have a powerful PC with a fast hard disc. Despite the extra space, there's still no way to work with two documents at once. The backward file compatibility with LocoScript 1 and 2 is good, but it's only one way – to the PC. To get them back the other way they have to be converted to ASCII files. If you find you have the use of a PC with a hard disc instead of a PCW – and you like LocoScript – then go for the PC version. But there's little to be gained in dumping your PCW in order to run LocoScript on a floppy-only PC. ●

... and Herculean efforts



3/ LocoScript PC still has the double-sized character screen, shown here to better illustrate the on-screen effects of codes such as italic, bold, outline and shadow. Few printers can manage all the effects though.



4/ With the datafile and mailmerge included in the software (no longer referred to as separate products in the manual) LocoScript PC achieves a new level of integration – but it needs a hard disc to get the best from it.

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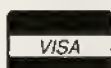
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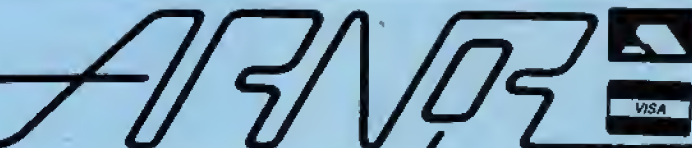
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LISTINGS

One program to test your knowledge and skill and another which does nothing for hours on end. What is the PCW up to?

.CHOMP.BAS by M.A. Owen

Who says that the PCW can't produce decent graphics at a fair pace? Well lots of people actually, and the one thing they have in common is the fact they're wrong. Mr Owen proves this with a variation on the theme of Hangman. This version of an old favourite is definitely anti-capital punishment however, and sees instead a battle between a voracious spider and a rather worried looking caterpillar.

The aim of the player, as it has always been with Hangman, is to guess a hidden word. Mr Owen has made all the words in this version animal related. They are all single words as well - there are no phrases - although this might not be such a bad addition to the program if you really wanted to start testing your friends or children.

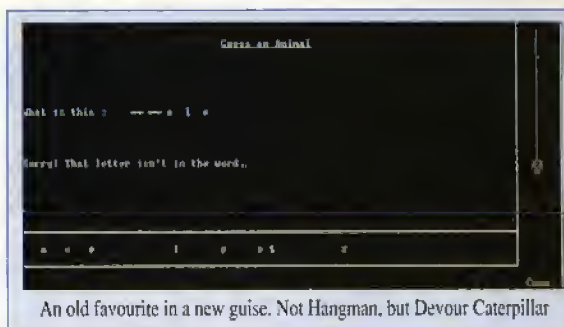
Every time a wrong letter is chosen you are informed of the fact and a spider drops a little further down its thread from the top of the left-hand side of the screen, ready to split the caterpillar in two. Every time a correct letter is chosen, the caterpillar is one step closer to

freedom. If the whole word is found, the caterpillar rushes off stage only to be forced to return whether or not you want to play another game. You have seven chances to hit on the correct answer - it might have been an idea to try and provide a skill level with increased or decreased numbers of attempts.

What makes this version of the game so appealing is the fact that all the options have been considered. You do not have to restart CHOMP.BAS every time you want a new game; nor do you have to play through a set of games before you can escape. The spider moves with great smoothness as does its prey. Another well thought-out option is the fact that the game remembers which letters you have already picked and warns you of the fact that you are

attempting to re-use one. Overall, CHOMP.BAS would make a good few minutes' break for adults and for the children of those adults it would serve as an educational tool par excellence.

You will notice when typing in the listing that the names of the animals have been saved in DATA lines towards the end of the program. These can obviously be changed or extended when you get bored with them. The scope of this game is very wide, and will provide many people with an enjoyable pastime for years to come.



An old favourite in a new guise. Not Hangman, but Devour Caterpillar

```

10 GOSUB 600
20 PRINT c1$:ERASE l$:DIM l$(26):c=0:w=0
30 PRINT FNp$(85,0);CHR$(200);CHR$(201);FNp$(85,1);CHR$(202);CHR$(203)
40 PRINT FNp$(84,30);CHR$(204);CHR$(205);CHR$(206);CHR$(207);e$+"H"
50 FOR f=0 TO 27:PRINT FNp$(82,f);CHR$(149):NEXT f
60 PRINT FNp$(0,24)STRING$(82,154)CHR$(157)
70 PRINT FNp$(0,28);STRING$(82,154);CHR$(153);e$+"H"
80 PRINT FNp$(37-LEN(h$)\2,2);e$+"r";"Guess ";h$;e$+"u"
90 PRINT FNp$(0,10);"What is this : "FNp$(18,10);:choice=1+INT(n*RND)
100 IF d$(choice,1)="1" THEN choice=choice+1+n*(choice=n):GOTO 100
110 d$(choice,1)="1":le=0:FOR f=1 TO LEN(d$(choice,0))
120 IF MID$(d$(choice,0),f,1)=" " THEN PRINT " ";:GOTO 140
130 PRINT CHR$(154);CHR$(154);" ";:le=le+1
140 NEXT f:t=t+1

```

The screen is set up here. Apart from changing the caterpillar's expression, this is the only place where graphics are used. Later, blocks of the screen are re-arranged to produce motion.

```

150 PRINT FNp$(0,16);"Choose a letter";SPACES$(50)
160 i$=LOWERS$(INKEY$):IF i$<"a" OR i$>"z" THEN 160
170 IF l$(ASC(i$)-96)="" THEN 190
180 PRINT FNp$(0,16)"You have tried that one."CHR$(7):GOSUB 390:GOTO 150
190 l$(ASC(i$)-96)="1":PRINT FNp$(1+2*(ASC(i$)-96),26);i$;e$+"H"
200 found=0:FOR f=1 TO LEN(d$(choice,0))
210 IF MID$(d$(choice,0),f,1)<>i$ THEN 230
220 PRINT FNp$(15+3*f,10);i$;" ":c=c+1:found=1
230 NEXT f:IF found=1 AND c<le THEN 150
240 IF found=1 THEN 360 ELSE w=w+1

```

A check is made to ensure that you have not already used a letter. Your choice is logged as i\$ to prevent further use.


```

250 PRINT FNp$(0,16);"Sorry! That letter isn't in the word."      1C04
260 GOSUB 390: IF w<8 THEN GOSUB 380:GOTO 150                     1470
270 PRINT FNc$(8):GOSUB 390:PRINT FNc$(4):GOSUB 390              1802
280 PRINT FNc$(10):GOSUB 390:PRINT FNp$(84,28)"      ";e$+"H"    16DF
290 PRINT FNp$(85,29);CHR$(200);CHR$(201);FNp$(85,30);          136B
300 PRINT CHR$(202);CHR$(203);e$+"H":GOSUB 390                   114B
310 PRINT FNp$(0,16)"You lost that one"SPACE$(40)                1539
320 PRINT FNp$(0,18)"The correct word was :      ";d$(choice,0)  19F9
330 PRINT FNp$(0,22)"Do you want another go? (y or n)"          1786
340 i$=INKEY$: IF i$="n" THEN PRINT c1$;e$+"e":END               13AC
350 IF i$<>"y" THEN 340 ELSE IF t<n THEN 20 ELSE RUN              169E

```

The fate of the caterpillar and the state of the spider's stomach are decided within this section. The confrontation appears in lines 270-320.

```

360 PRINT FNp$(0,16)"Well done."SPACE$(40)FNc$(8)              157B
370 GOSUB 390:PRINT FNc$(9):GOSUB 390:CALL ctr:GOTO 330          1A93
380 PRINT FNc$(8):CALL spid:PRINT FNc$(4):RETURN                17D2
390 FOR g=1 TO 1000:NEXT g:RETURN                                 110A

```

If the caterpillar lives, he rushes off in a machine code routine shown in lines 360-370.

```

400 DATA 01,67,e0,18,08,01,4c,e0,18,03,01,40                  0D5A
410 DATA e0,c5,2a,01,00,01,57,00,09,22,1a,e0                  0DED
420 DATA c1,cd,00,00,e9,00,c9,d5,5e,23,56,e1                  0F8E
430 DATA eb,7d,e6,07,4f,7d,e6,f8,cb,27,cb,14                  0FF6
440 DATA b1,6f,c9,db,f8,e6,40,28,fa,db,f8,e6                  1095
450 DATA 40,28,f4,c9,21,00,ee,11,40,be,01,58                  0E2C
460 DATA 00,ed,b0,c9,06,58,c5,cd,33,e0,21,e0                  0F1F
470 DATA b7,cd,1f,e0,e5,01,08,00,09,d1,01,c0                  0EEF
480 DATA 02,ed,b0,c1,10,e8,c9,06,20,c5,21,e0                  0EF1
490 DATA b7,e5,cd,1f,e0,01,a8,02,09,eb,06,f0                  0F89
500 DATA cd,33,e0,e1,2b,2b,e5,c5,cd,1f,e0,01                  0F2F
510 DATA a8,02,09,e5,7e,12,01,08,00,09,eb,09                  0DA2
520 DATA 1a,77,d1,c1,10,e5,e1,c1,10,cf,c9,*                   0E1B

```

The first of the boring DATA sections. These are the really smart bits of programming which produce the rapid and smooth scrolling graphics.

```

530 DATA &hd2,01,87,78,14,f2,11,f4,12,00,c2,3c,50,9e          10A6
540 DATA 10,5e,90,69,87,88,0a,09,07,09,04                    0D25
550 DATA 2c,c2,22,a0,20,c0,20,40,24,7e,81                    0CAD
560 DATA a5,81,99,42,3c,00,00,00,ff,00,ff,92,92              0F13
570 DATA 00,00,00,ff,00,ff,49,49,00,00,00,fe,01              0ECB
580 DATA fe,24,24,24,7e,a5,81,81,99,42,3c                    0D51
590 DATA 24,7e,a5,81,a5,bd,42,3c,24,7e,81,81,a5,99,66,3c,*,&h79 1521

```

That's the tedious numerical DATA over and done with. The various characters are set up here for later action. Look for the READ and RESTORE commands throughout the program.

```

600 MEMORY 57343!:RANDOMIZE (PEEK(64503!)+60*PEEK(64504!)):e$=CHR$(27) 1BA9
610 c1$=e$+"E"+e$+"H":init=57354!:spid=57344!:ctr=57349!        14EC
620 DEF FNp$(x,y)=e$+"Y"+CHR$(32+y)+CHR$(32+x):PRINT e$+"f"      15BE
630 DIM d$(200,1),l$(26):DEF FNc$(x)=FNp$(84,30)+CHR$(200+x)+e$+"H" 156C
640 RESTORE 710:f=1:READ h$,i$:WHILE i$<>"*":d$(f,0)=i$:d$(f,1)="":READ i$1AFF
650 f=f+1:WEND:t=0:n=f-1                                           0B2E

```

The basics of the game are set up here. The word data is held in array d\$(x,0). Array d\$(x,1) tells the PCW whether a word has already been given to a player.



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The text within THE GRAPHOLOGIST was researched and written by a top London graphologist/criminologist James Woodward. The software was written by Martin Evans our consultant software writer.

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```

660 IF (PEEK(init)=1) AND (PEEK(init+1)=64) THEN RETURN 1940
670 RESTORE 400:add=spid:FOR g=1 TO 2:f=0:cs=0:READ d$:WHILE d$<>"*" 1EE2
680 m=VAL("&h"+d$):POKE add+f,m:f=f+1:cs=cs+m*256*((cs+m)>255):READ d$ 1CDD
690 WEND:READ d$:IF cs<>VAL(d$) THEN PRINT "Mistyped code.":STOP 20BC
700 add=60928!:NEXT g:CALL init:RETURN 1347

```

A machine code call is made here to install the graphics characters of the spider and caterpillar. They comprise of ASCII characters 200 to 210.

```

710 DATA an Animal 0888
720 DATA ass,badger,bat,bear,beaver,bison,boar,buffalo,caribou 207E
730 DATA cat,coypu,deer,dolphin,dormouse,elk,ferret,fox,hamster 24CD
740 DATA hare,hedgehog,horse,jackal,lemming,lynx,mink,mole,mongoose 2619
750 DATA moose,mouse,otter,ox,polecat,porcupine,porpoise,rabbit 250B
760 DATA raccoon,rat,reindeer,seal,sheep,shrew,squirrel,stoat,vole 26EE
770 DATA walrus,weasel,whale,wolf,donkey,cow,goat,dog,monkey,elephant 27DE
780 DATA lion,snake,lizard,frog,tiger,zebra,giraffe,* 1CE6

```

The question words lie here. If you wish to add your own all you have to do is make sure that the DATA list ends with an asterisk "**".

How to Type in a Listing.

First you need to get Mallard BASIC up and running. Insert a copy of your CP/M disc – not the master, make sure that you are using a copy. At the A> prompt type BASIC and press [ENTER]. BASIC is loaded when the A> disappears and a small message is displayed on the screen:

Mallard-80 BASIC with Jetsam Version 1.29

(c) Copyright 1984 Locomotive Software Ltd

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31597 free bytes

Some of the details, such as version number, date and bytes might be different but essentially the message will be the same. BASIC is fully loaded when the CP/M A> is replaced by ok. You're now ready to type in the listings. Do this as they appear on the page, line by line. Don't type the four figure hex numbers at the end of every line as these relate to the Checksum program published in the April 1990 issue.

Typing errors are quite common so check each line carefully. If

you find a mistake before pressing [RETURN] simply cursor back to it and make the required correction using the [DEL] keys. If you realise that you've made a mistake after pressing [RETURN] you will need to type EDIT and the number of the offending line. You can then edit any errors in the same way as above. Once you're sure that all is correct press [RETURN]. The amended line will be accepted into the program.

When you've typed in all the lines and made any corrections, type LIST to print the entire program on the screen. If you want a copy sent to the printer you will need to type LLIST.

After making another line by line check you must save the program. Do this by typing SAVE" followed by a filename such as DRAW. You don't need to bother with the .BAS as Basic assumes this. Make sure the filename is no longer than eight letters.

Finally type RUN and wait. The chances are that the dreaded 'Syntax error' in line so-and-so or some other message will appear. The line number might not be the exact place in which the error occurred but it will narrow down the search. Edit any errors in the manner we have noted and try again. If all else fails – RTFM – or Read the Flipping Manual as programmers are wont to say.

BLANKIT.BAS by John Filsak

There has been a running argument in the Tipoffs and Postscript pages as to the value of keeping the PCW switched on. One view has it that continually switching the PCW on and off does nothing for the machine at all and, in fact, causes damaging power surging. However, keeping the PCW switched on all the time means that whatever is on the screen (even if it is only the A> prompt) will eventually burn into the screen. There has to be a happy medium and it is achieving this which has fuelled the debate. Many people have come up with screen clearing routines which rely on the `cls$=CHR$(27)+"E"+CHR$(27)+"H"` system. (There is no built in routine to clear the screen in Mallard BASIC, such as the command CLS, which is common to other versions of the BASIC language like MicroSoft BASIC or GWBASIC. In fact, there isn't a command to find the cursor equivalent to LOCATE in MicroSoft BASIC. With Mallard you have to use the rather

lengthy line which defines a user function such as FNat\$. This is achieved in the following manner:

```

DEF
FNat$(x,y)=CHR$(27)+"Y"+CHR$(
(x+32)+CHR$(y+32). It is used in this
way: PRINT FNat$(20,20); "Hello there
to you".

```

To get back to the point, this reliance on the BASIC clear screen routine is all well and good; it does the job, but unsuspecting visitors are left with the impression that the PCW is in fact switched off. Mr Filsak's program provides the occasional message and alarm as both a reminder and a warning.

John Filsak's answer is contained in this short BASIC listing. What it does is to blank the screen for a fixed amount of time. At the end of this period (which you set), a message warning you that the PCW is switched on appears for another fixed amount of time (again you get to set this). If, during the time that BLANKIT.BAS is running, you need to return to BASIC, all you have to do is

touch a key and the program will end – you will be returned to the ok prompt. This is a neat way around the problem.

You could even turn it into a SUBMIT file which could be run directly from CP/M. By changing the command END in line 290 to the command SYSTEM, you would be returned to the CP/M A> prompt. The submit file might look like this: BASIC BLANKIT.BAS. There are many other ways of clearing the screen (try typing OUT 248,8 to clear it and OUT 248,7 to restore the screen), but Mr Filsak's method with timing and message is neat and tidy.

SCREEN-BLANKING PROGRAM

```

Do you require a warning that the program is running? (Y/N)
Enter value for minutes between warnings (1-59): 33
Enter value for length of warnings (1-59 secs): 22

```

A program which seems to do almost nothing - except save your beloved PCW from some nasty screen-burn


```

10 OPTION RUN                                0730
20 e$=CHR$(27):cl$=e$+"E"+e$+"H"           093F
30 PRINT cl$e$rSCREEN-BLANKING PROGRAM"e$u":PRINT 1BC1
40 PRINT"Do you require a warning that the program is running? (Y/N)" 2579
50 i$="":i$=UPPER$(INKEY$):IF i$<>"Y"AND i$<>"N"THEN 50 16A5
60 IF i$="N"THEN GOSUB 110:GOSUB 310:GOSUB 300:GOTO 290 18A8
70 PRINT:INPUT"Enter value for minutes between warnings (1-59): ",min$ 26E1
80 PRINT:INPUT"Enter value for length of warnings (1-59 secs): ",sec$ 2385
90 IF VAL(min$)<1 OR VAL(min$)>59 THEN min$="15" 1474

```

The OPTION RUN command at the start of the program disables the [STOP] key or [ALT]+C program termination procedure.

```

100 IF VAL(sec$)<1 OR VAL(sec$)>59 THEN sec$="20" 13F5
110 PRINT cl$"Press a key to blank the screen." 161D
120 PRINT:PRINT"A further keypress will restore the screen" 22BE
130 PRINT"and return you to BASIC." 1278
140 IF i$="N"THEN GOSUB 300:RETURN 10D3
150 PRINT:PRINT"A warning will be given every "min$" minutes" 208E
160 PRINT"and displayed for "sec$" seconds." 15AC
170 GOSUB 300:GOSUB 310 09C9
180 mins=64503!:secs=64504! 0B45
190 POKE mins,0:i$="" 084F

```

Lines 70 and 80 preceding this ask for the timings; this section deals with messages to the user and the values needed to POKE the PCW's internal clock.

```

200 WHILE i$="":i$=INKEY$ 09FF
210 a$=HEX$(PEEK(mins)) 0A3C
220 IF a$=min$THEN PRINT CHR$(7)e$"Y,AWarning!! PCW running!!":i$="xq" 2077
230 WEND:IF i$<>"xq"THEN 290 0C37
240 POKE secs,0:i$="" 0816

```

The warning message is given here. This can be expanded upon if you wish. Note also the use of HEX\$ in line 210 which converts from decimal to hexadecimal.

```

250 WHILE i$="":i$=INKEY$ 0A0E
260 a$=HEX$(PEEK(secs)) 0A0D
270 IF a$=sec$THEN PRINT cl$:i$="xq" 1006
280 WEND:IF i$="xq"THEN 190 0BD9
290 PRINT cl$e$"1"e$"e":END 0A99
300 WHILE INKEY$="":WEND:RETURN 113E
310 PRINT e$"f"e$"0"cl$:RETURN 0D98

```

HEX\$ crops up again but this time it refers to the seconds which elapse before the message disappears from the screen and blankness returns to protect your PCW.

SEND LISTINGS

We don't make up the listings in 8000 Plus. We need you to send us programs of general interest. What we are looking for are short programs, 50 lines or less, because this means that we can fit more into an issue. Longer examples will of course be used, but only if they are brain-burstingly brilliant.

So, if you can wend your way around BASIC and would like to see your name printed in 8000 Plus as well as our signatures printed on a cheque, send us some lines.

Along with the listing itself (replete with REM's please) we require the listing to be saved in ASCII form on a disc together with documentation saved either as a simple ASCII file or in Protex format.

The documentation should include instructions for use and details of how the program works. Include a printout of the documentation and a stamped addressed padded bag for the return of your disc. Don't forget the signed statement confirming that the program is all your own work and hasn't been submitted to anyone else.

Send your work to: Listings, 8000 Plus, Beauford Court, 30 Monmouth Street, Bath, BA1 2XF.

We may even consider using the occasional program written in other well-known languages such as C or Pascal. These should not be too long and should be accompanied by plenty of documentation. Weird programs will only usually get printed if they bring out new and wonderful facets from the PCW. We would prefer to receive listings which have a genuine general interest for our readers.

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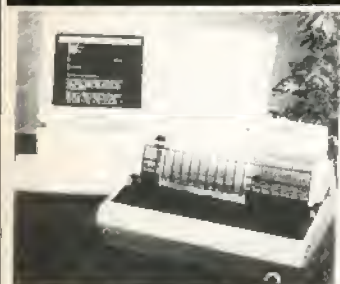
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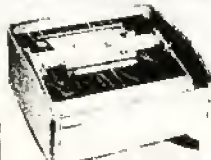
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LANGFORD

A page in the company of David Langford



Dangerous corners

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It was as Buying Executive that I met a fascinating example of real-life logical paradox. One gradually gets used to the pitfalls of trade price lists, such as having to detect by telepathy whether the figures include VAT (usually not, except sometimes) and whether "5% discount for cash with order!" applies to cheques (yes, but expect irritating delays while the cheque is tested for bounciness). The

new snag came from bulk discounts.

We wanted CF2 discs. The minimum bulk order from a company which shall remain nameless worked out at over £100. Which was fine until I noticed that when you ordered more than £100-worth, the price per disc dropped. Great! I did the sums again, using the lower figure. Oops.

Bertrand Russell would have loved this. At the price for orders less than £100, my discs cost over £100, and at the price for orders over £100, they were only ninety-odd, which raised the price to the higher rate for orders below £100, so....

Perimeter paranoia

A systems analyst would probably suggest, after pocketing a huge fee, that the neatest solution here would be a flat charge of £100 for every disc order in that dodgy region

where the price keeps oscillating. Being a cynic, I suspected that the vendors might prefer avarice to logical elegance, and played safe with a blank cheque marked "not more than (the higher price)".

This is how, in the world of computers, it can take half an hour of head-scratching to make one purchase. It also shows aspiring programmers how innocent-looking rules may lead to dangerous instabilities. The places to watch for problems are at a situation's edges or corners; for the disc purchase, the awkwardness comes where the price per disc veers in a rather ill-defined way to the lower rate.

Glitches often happen at extreme edges, at zero and infinity. That zero discs cost zero pounds isn't a problem. However, as a book reviewer I often receive parcels of SF costing nothing: when I flog the unwanted rubbish at 50p a copy, my percentage profit per volume is 100 times 50p divided by zero, which is guaranteed to boggle any business records program. Unless, of course, some programmer has incorporated the tactful message, "Division by zero? You can't do that here."

It wouldn't happen in real calculations. Think of this: a company, probably mine, makes zero profit in 1990. Whatever profit or loss it makes in 1991 will, if you're fool enough to express the change as a percentage, be infinitely better or worse than 1990's.

Locostripped

Another example which rather embarrassingly comes from real life: wearing my Chief Programmer's hat, I wrote some software which gulped LocoScript files and did nameless things with them. It was only interested in the text, and ignored headers, print controls for underlining, and so on.

But one chap's document made it seize up completely, leaving me baffled until I realised I'd failed to consider the extreme case. There was no actual text, and my program was no good at processing LocoScript files containing zero words.... After each word, and only then, it checked whether it was at the end of the file. The cure was to have it check *before* each word.

(I still haven't allowed for awkward folk who produce Loco

documents of infinite length. Once someone announces an add-on hard disc with infinite capacity, I'll have to rethink that program again.)

Point of no return

Another time when I had to worry about the treacherous corner at Point Zero was in doing the astrophysics for an SF story. The easiest way to work out certain orbits, and the time it took before spaceship A collided with massive object B, seemed to be to simulate everything on the computer and let Newton's laws of motion and gravity take their course. Unfortunately the program tended to blow up shortly before printing out its graphs of what had happened. The gravitational attraction between A and B doubles each time the distance between them halves. For the first rough simulation, I hadn't bothered to allow for these objects having any *size*: as their separation shrank to zero the acceleration soared towards infinity, the figures got vaster than the computer's registers could comprehend, and the program pointed a last accusing error message at me as it died.

Obviously, if one object is little and the other a planet, the program should stop calculating and simulate a loud bang when the separation between their centres drops to whatever the planet's radius happens to be. Problem solved — or only evaded? Suppose there's a tunnel right through the world and our spacecraft plunges in... does it meet awkward infinities at the centre?

This is interesting. It turns out that, as with the disc price list or the difference between water at 99 degrees and 101 degrees, the rules change when you cross an invisible line. Once below the surface, instead of growing by the inverse-square law, the force of gravity now decreases sedately with distance from the planet's centre, and of course reaches a neat zero when you get there. Sanity returns.

Before turning this corner, the calculations had overflowed because of dodgy approximations and not thinking the problem through. *Mea culpa*. When I'd put it right and cranked out my distance/time graphs, I went around for days being smug and calling myself the company's Astrophysics Director. No one seemed to believe me. ●

Share your knowledge with us! Send your tips to Tipoffs, 30 Monmouth St, Bath BA1 2XF – it's Freepost, so no sweat.

Here's a reminder of the quickest way to set margins in LocoScript 2. Press [F2] while editing to change the layout or make a new one. Press [+] to move the left hand margin to the right, or [-] to the left.

Yvonne Claypole,
Matlock, Derbyshire

The solution to R J Wheeler's LocoFile problem of getting all, or a selection of, LocoFile records into a single document, is just the creation of a simple loop instruction. This is the perfect way of making lists from LocoFile, saving them as an ordinary LocoScript document, and can be used for personal organiser lists etc.

Create a master document of the paper size that you want to print on and call it, for example, LISTMSTR. (You can have a title for the first page and/or headers/ footers etc. as for a normal document). Then type the following formula, or equivalent, as text.

The example given will list people's surname, addresses and telephone numbers, by order of surname. It can be easily changed to select the particular item names that are in the LocoFile you wish to sort or print. You don't enter any spaces in the following routine except where it says [SPACE] – they're just here to make it easier to read.

```
(+Mail) $=="surname" (-Mail)
[RETURN]
(+Mail) % (+Mail) Title (-Mail)
[SPACE] (+Mail) First_name
(-Mail) [SPACE] (+Mail) Surname
(-Mail) . [RETURN]
(+Mail) Address (-Mail)
[RETURN] (+Mail) Telephone
(-Mail) [RETURN] [RETURN]
(+Mail) $+ (-Mail) "@Surname
(-Mail) [RETURN]
```

Remember to check that you have an equal number of (+Mail)s and (-Mail)s or the process won't work! Also for mail merge, 'Item_names' must be whole names. If, for example as above, you have called an item 'First name' in LocoFile, it must be entered as 'First name'.

The `$=` contains the item_name by which order you would like the information sorted. This name must exist as an Index in LocoFile. If this line is omitted, or left blank, the information is sorted by record number.

The % sign tells Mail Merge to repeat the program contained between the next pair of " marks until the 'item' named at the end, after @, has been exhausted.

The number of [RETURN]s in the next to last line sets the amount of space you want between each item in the finished listing. (You could put [ALT] [RETURN] here if you want items separated by a page.)

The \$+ tells the program to keep the next address etc. on the same document. Normally this will be the same page, and in this way you can sort or print as many items as you want per page as the paper type will allow.

Remember when creating the document (Document setup, [f1]) to ensure that under [f5] 'Page' you select 'Page break control' to 'Do not break paragraphs'. This ensures that addresses will not run over a page end.

USING THE ROUTINE: When you have typed the loop instruc-

Just a reminder to anyone who uses the tip featured last month for addressing envelopes by using the [f6] 'Offset' feature and direct printing in LocoScript 1 or LocoScript 2.

After you've finished doing envelopes, you should return to an offset of zero by pressing [F6] and clearing offset or typing in 0 – or else all subsequent printing will be offset to the right, playing havoc with your letter margins and paper settings!

**Joe Isaacs,
Netanya, Israel**

Is it possible to use a PCW with a plotter such as those used to produce technical drawings, blueprints, plans and designs etc, via computer aided design? I want to do an A level project on this use of the PCW.

Christopher Hill,
Rochester, Kent

8000 Plus: *Never having used one I'm afraid I'll have to throw that question open. If anyone has used a plotter perhaps they could tell us if and how it's done?*

Is there a way of expanding my memory? I use LocoScript 2, LocoMail and LocoFile and find that with data files loaded I am running out of available memory.

Dr Diarmaid MacCulloch,
Glasgow

8000 Plus: Yes. SCA Systems' "Rampac" is a small box that clamps on the back of your PCW (no wiring or soldering, just stick it on) and gives you an extra 512K of memory. It worked fine with LocoFile et al when we tested a model and it costs £113.85 including VAT from SCA on 0903 700288.

tion, save the document as a Master.

Then from the disc manager, put the cursor over this document and press M for 'Merge'.

On being asked the data document you wish to use, move the highlight over the appropriate LocoFile file and [ENTER].

Check the two documents are the ones you wish to merge and that 'Manual' is selected, [ENTER] again and the document is created on screen.

When the sort is completed you are offered options to print, save etc. as usual. If you 'save' then you can give a name and your document has been created.

A simple little routine, but a very useful one,

Peter Goddard,
Faversham, Kent

8000 Plus: Thanks for a neat solution to the problem.

This is much, much more useful than I thought last month: if you want to transfer your LocoFile data file to another database – Masterfile, for example – you can use the above to make up a document containing your name and address list, or whatever it is, make an ASCII file of it, and import that into Masterfile. See this month's Masterfile feature on export and import.

It also enables you, with a bit of LocoMail selection, to make selective lists from your LocoMail or LocoFile data: a document containing names and addresses of just your local customers, or just the members of your club who haven't paid their subs.

```

16-Layout 13-Style 12-Size 11-Page 10-Print 9-Options 8-
17-Mail1=-Surname(-Mail)#
18-Mail1=(Mail)Title(-Mail) (Mail)first_name(-Mail) (Mail)Surname(-Mail),#
19-Mail1Address(-Mail)#
20-Mail1Telephone(-Mail)#
21-Mail1E(-Mail)"#Surname(-Mail)#

```

up @ ADDRESS .LST editing text.
1 1 1 1 1 1
ions f2-Layout f3-Style f4-Size

M. John Abbott, e
15 High St^e
Avenue
Tel 0746
0225 715629
e
M. Jane Actfield, u
85 Bristol Rd
Wolverhampton
West Midlands
B2 2JH
021 654 7266
e
Dr M Addison, e
c/o John Radcliffe Hospital
Oxford
0865 345261
e

Rear Admiral Lord Sir Denis Arnold-C
The Old Bus Shelters
Brickyard Lane
Grimsby
South Humberside
G85 8BW

Suppose you want to extract the information stored under 'surname', 'title' etc. from your LocoMail or LocoFile data file. This routine, when merged with the data file...

...produces this result. This file, with a bit of tweaking, can be imported into Masterfile – see the Masterfile tutorial this month for more details.

Psion of the times

For transferring files from the PCW to the Agenda and vice versa, MAIL232 (on the CP/M disc on the PCW9512 or the LocoScript 1 disc on an 8512 or 8256) is the best bet. It avoids use of SETSIO and of PIP.

Run up CP/M and at the A> prompt insert the appropriate MAIL232 disc and type MAIL232 [RETURN]. [F1] allows you to set the baud rate – thus avoiding SETSIO – and 2400 for transmit and receive is a good option. I have set the Psion to these as default. Set [F3] to SEND, type in the filename, set the Psion comms to receive file name and press [ENTER] on the PCW. At the end of file, the cursor will reappear at the bottom left corner of the screen indicating suc-

cessful transfer. Press [CLEAR/ON] on the Psion and there you are.

To transfer from the Psion set [F3] to 'receive file', set the Psion to transfer required, press [ENTER] on the PCW and [EXE] on the Psion. The Psion beeps at the end of the transfer. Press [ALT][STOP] and the transfer is complete.

Derek Madge, Exeter, Devon

8000 Plus: Just a reminder that you change the baud rate options with [ALT] V.

MAIL232 is a very underrated little utility, especially as it comes free and with a hidden game – see Tipoffs last May. Incidentally, the instructions on how to use it are not in the CP/M handbook, but in the manual that comes with the RS232 interface.

F1 = Framing ■ F3 = Files ■ F5 = Connec

```
Tx Baud Rate .. 2400
Rx Baud Rate .. 2400
Data bits ..... 8
Parity ..... NONE
Stop Bits ..... 1
H/W Handshaking ON
```

MAIL232 is an underrated tool for transferring files to another computer such as the Agenda or a Pocket PC. No need for SETSIO or PIP!

Basic questions

1. How do you get a PROFILE.SUB file to load BASIC and then run a BASIC program?
2. What memory addresses are used to store the current printer position? Can they be poked in BASIC so I can advance the paper to the desired position?
3. How do I change print quality in BASIC from draft to high print quality and vice versa?
4. Pressing [EXTRA] [PTR] gives a image of the screen – a "screen dump". Is there any way of getting this done by a BASIC program, by calling or poking some address?

**M Whalley,
Warrington, Cheshire,
and John McNaughton,
Bexhill, E Sussex**

8000 Plus: 1. To load BASIC and then immediately run the program SPLAT.BAS say, the line BASIC

SPLAT should be in your PRO-FILE.SUB file. Typing this directly at the A> achieves the same effect.
2. The best you can do is find out how far across the print head has gone – I don't think the number of lines travelled vertically is counted anywhere. But you don't need any poking. The command Y=LPOS(X) makes Y equal to the current position of the printer head. If it's at the extreme left it is 1; at the extreme right it is 90. (Y=POS(X) is similar for the screen position). You can then use LPRINT SPC(Y-1) to go to that position.
3. This routine should help you:
10 LPRINT "This is draft"
20 LPRINT CHR\$(27)+"m1"
30 LPRINT "This is high quality"
40 LPRINT CHR\$(27)+"m0"
50 LPRINT "This is draft again"
(Of course it won't have any effect on a PCW9512.)
4. Sorry, don't know this one either – I'm asking for help again!

Phantom printer

My printer prints on LocoScript but not with CP/M, just showing 'No printer' when I press [PTR]. Why?

**Mrs Pamela McDonald,
Huddersfield**

8000 Plus: Check the other 'obvious' things like connections at the back, and make a new copy of CP/M (it's possible from our experience that a corrupted disc won't recognise the printer). Finally try putting the cursor over the message 'No printer' and pressing [+].

Pin money

I seem to be having a little difficulty with my printer – at a guess, misfiring pins in the printer head. My computer is outside the period of guarantee. How can I clean the pins?

**Kenneth J Dickson,
Edinburgh**

8000 Plus: If your printer were still under guarantee I'd say take it back and change it, but as it isn't, you may as well have a go at fixing the dodgy pin (you guessed correctly). Here's the general procedure for fixing a printer that is misfiring.

The first solution is to adjust the pressure of the printer head. Lift off the black plate with 'Amstrad' on it and find the red or blue plastic knob at the right hand side. Adjust the pressure setting until the tops and bottoms reappear.

If your tops and bottoms are still faint try printing a wordy document with the printer ribbon removed on a sheet of paper which has vertical stripes of WD40 one inch thick on it. The print head picks up WD40 from the stripes and deposits the grime off the head onto the bits in between.

You can try applying WD40 direct to the printer head to clean it. The printer head can be easily removed by gently prising off the metal retaining plate lying over the flat ribbon cable behind the head assembly. The head is then slipped away from the roller and lifted out. Spray on the WD40, wipe off the excess with a tissue and if a good dousing of the print head with WD40 only resuscitates your printer for a short while, the only real remedy may well be to clean the pins on the printer themselves. Be warned, this is not easy and could take a few hours if you

get your pins mixed up, so don't do it unless your printer really is getting rosey!

With the print head still tethered to the printer by its copper braid, take a small crosshead watchmaker's screwdriver (if you can't borrow one, they cost around £5) and remove the four tiny bolts from the printing side of the head. Keeping the metal striker part of the print head uppermost (black plastic and printing face downwards) carefully ease the metal striker part away from the black plastic housing holding the pins. Put the black plastic piece on the table with the printing face downwards.

Note the position of the pin tails on a circular diagram – this is essential. It's vital to keep the pins in exactly the same order as you removed them. They all have different shaped tails though this isn't obvious until after you've removed them. With a pair of eyebrow tweezers, carefully withdraw the pins and lay them on a circle. Remove the return leaf springs ring. It has a small protrusion which slots into a matching slot on the plastic case so you can't put it back in the wrong position. Beneath the leaf springs ring, there's another packer ring which exactly matches the leaf springs ring. Beneath that is a fibre washer to stop dust.

Douse the plastic printing head and particularly the fine slots in which the pins slide with lots of WD 40 – old printers will have an amazing amount of muck there.

Reassembly is the reverse procedure. The whole procedure can take as little as thirty minutes (so long as you don't lose any of the pins!). For testing, printing in draft makes it easy to see which pin is playing up, and after cleaning, printing a few pages in NLQ without the ribbon in place will work off excess solvent.

However as you have probably guessed by difficulty with my printer and; at a guess, All printout from my machine s. character:I am unable to find any advice magazine in recent issues: One gentleman his dealer when he wrote in with a problem unable to do this since my dealer has computer is now outwith its period of g pins are dirty/clogged up? If so; how

If your printer is doing this and is out of guarantee, you'll have to pin your hopes on fixing it yourself

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[illegible]

The Loco File

The two-file editing setup as suggested by the Rev. Komor in March's Tipoffs provides the useful basis for a free text database in which to store quotes, notes and other variable-length data. Since LocoFile can match a string anywhere within its records – it isn't restricted to searching within a specified field as are many other databases – retrieval is simple. Just one key word or phrase can be sufficient to locate a lengthy quotation. However, the FIND facility within LocoFile is limited to one match per record and so where there are several occurrences of the search string it may be worthwhile to extract lengthy notes and use LocoScript's normal FIND to root them all out.

Data entry in LocoFile, even on M, can be a very tedious business when entries run to more than

a sentence or two. It is far quicker, and less frustrating, to type lengthy items either into a LocoScript file which can be saved to a block and pasted in, or into a LocoMail file and entered using LocoFile's insert data facility under [f1].

The LocoMail setup for this is very simple: a listing of all the LocoMail item names, each followed by a [RETURN] or other separator, the final name ending with a new page ([ALT] [RETURN]) or UNIT. For instance, if the final layout for a LocoFile free-text record card is Subject (1 line) Reference (1 line) Text (60 lines) then the setup for the LocoMail file must be Subject [RETURN] Reference [RETURN] Text [ALT] [RETURN] Remember that colons will confuse LocoMail and that you should enter the appropriate separator for empty fields.

Mary Warren,
Stroud, Gloucs

Ms MOP

Mini Office's very useful spreadsheet program is supposed to have a maximum of 255 rows or columns per spreadsheet.

Actually the practical maximum seems to be just under half of this figure at 122. However, the default is set at 100 and with each insertion the number increases until a maximum of 122 is reached, when the system locks in both directions: you can add rows or columns but not insert them.

The solution is simple: this is what to do. Change the setting in 'Alter spreadsheet' back to 100 (or whatever value you wish, just as long as it's greater than the number in use).

The system is freed and the additional lines or columns can be inserted.

Mary Warren,
Stroud, Gloucs

Both sides now

Here's the simplest way of printing on both sides of your continuous stationery while still preserving the page numbers. It involves two print runs and gives you two copies of the manuscript, of course.

When inserting allow a lead run of two blank sheets, then print the document, Remove and turn over, re-insert and leave just one sheet blank. The result should be like this:

Sheet A blank/blank
Sheet B blank/p1
Sheet C p1/p2
Sheet D p2/p3 and so on.

Taking sheets C, E, G etc. will give a perfectly paginated set. Sheets B, D, F etc. will be correctly paged, but with odd pages on the left – good enough for most purposes!

W Lampard,
Radlett, Herts

Loads of sheets

I am being driven crazy by a problem in the otherwise excellent Protext with my PCW9512 and sheet feeder. When I change the ruler line in a document, the header on the second and subsequent pages is thrown drastically to the right. Why?

Steve Evans,
Halesowen, West Midlands

8000 Plus: Despite a few trials I couldn't get this problem (with Protext v2.23). It could be a bug in your version (ring Arnor on 0733 68909) or maybe you've done something funny in the stored commands. Any thoughts, anyone?

Catching BAS

In BASIC if you save a program the extension BAS is assumed; if you type SAVE "SAM [RETURN] then you end up with SAM.BAS on the disc. This can be changed by the following commands:

POKE 7542,n
POKE 7543,n
POKE 7544,n
where n is 65 if you want A, 66 for B and so on. So, if you wanted to make every program be saved with the extension ZAP you'd have the three commands:
POKE 7542,90
POKE 7543,65
POKE 7544,80

Mark Titchener, Dorset

Flipping game

Scrabble is one of the best games on the PCW and the implementation is very good, but...

Is there a way of leaving Scrabble with [SHIFT] [EXTRA] [EXIT] instead of having to turn the machine off and on again?

Further, can I get Flipper to work with Scrabble? It seems to ignore [SHIFT] [EXTRA] [EXIT] so won't 'flip'. I'd like this so I can flip out of Scrabble back to a spreadsheet in CP/M when my boss comes!

And why does it insist on telling me what it's thinking even though I told it not to?

Dave Rogers,
Shrewsbury

8000 Plus: Yes, you can get [SHIFT] [EXTRA] [EXIT] to work, but it's a bit hit and miss.

In Scrabble, select option 1 to quit a game and print it. Put a piece of paper into the printer. When the printer status line comes up at the bottom it 're-enables the interrupts', which in plain English means that [SHIFT] [EXTRA] [EXIT] works again. Now you can reset the machine as usual.

If you've set Flipper up to run two CP/Ms you can now flip out of Scrabble. But don't blame me if, when you try to flip back to Scrabble from Flipper, you get a continuous beep!

The thinking business is a bug in Scrabble which, unfortunately, we're stuck with. Can any hackers out there help us?

Do you copy

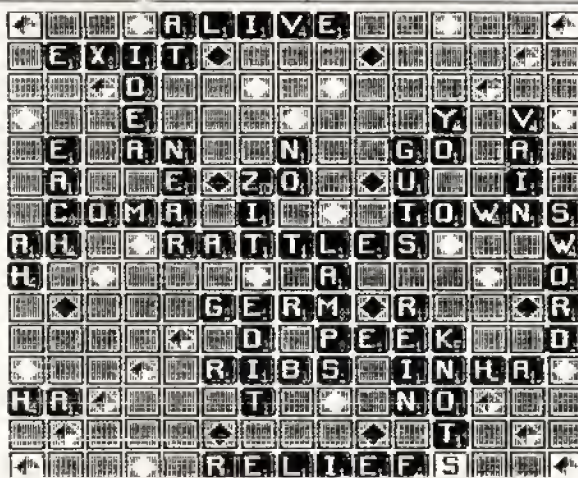
The use of handwriting (pencil) carbon paper, rather than typists' carbon, gives good sharp copies with a dot matrix printer.

Mary Warren,
Stroud, Gloucs

Sdrawkcab rekciuq

In LocoScript, if you want to cut text from a long document by marking out a block and using [CUT], it's quickest if you do it backwards.

Mark Titchener,
Wimborne, Dorset



LFJUDAP

If you're being beaten heavily at Scrabble, here's how to flip out of the game...

PLAYER: ROB
LEVEL: SCORE: 1310

PLAYER: SHARON
LEVEL: 1 SCORE: 130

1.QUIT/SAVE 5.TILES
2.PASS/FORCE 6.CHANGE
3.PREMIUMS 7.JUGGLE
4.VALUES 8.HINT



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The Good Software File

Up Date...

These pages provide a guide to the best software around for the Amstrad PCW. Published in three monthly parts, this time it's the turn of Spreadsheets, Games and Graphics to face the ultimate test. We've set out to test every piece of software we could lay our hands on, and to give you enough information to decide which program is the one you might be looking for.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available. As well as a brief summary of what they do, there are the main Plus and Minus points for each program - Pluses have a ▲ by them, Minuses a ▼.

Most of the packages mentioned throughout this guide should run on all three models of the PCW - unless, of course, we have stated otherwise.

Spreadsheets

If a database replaces an address book, then a spreadsheet replaces the back of an old envelope. It is really an electronic piece of paper which allows you to jot down numbers, juggle them around and analyse the cost benefits of a situation. Vital for businesses, spreadsheets can be useful to home users too: if you want a bank loan you will find that showing your bank manager a spreadsheet printout of your living expenses answers a lot of questions!

A typical spreadsheet has a grid of rows and columns. This grid forms a screenful of cells identified by their column and row numbers, e.g. A3, K36 etc. Each cell can contain a simple number, some text to make the page easier to read, or a formula telling the spreadsheet to work out a number using values from elsewhere. The power of spreadsheets is in this last category, formulae. You can make a cell's value depend on the value of cells above it, or to the left of it, and this value is then automatically updated if changes are made to the other cells.

So how do you choose between the various spreadsheets? One difference is sheet size, i.e. the number of cells you are allowed to work with. You'll need a few hundred for home use, and 1000 or more for business use. Another area is the range of formulae that you can use - all spreadsheets allow simple column and row totalling, but with some you can get complex statistical analyses too. As with all software, think very carefully what you will need before choosing.

Mini Office Professional Plus

£49.95 • Database Software • 0625 878888

Mini Office is a suite of five integrated programs - database, word processor, graphics module, comms package, and a very good spreadsheet. Broadly similar to SuperCalc in operation with usual features of auto or manual recalculation, replicating of rows/columns, powerful range of arithmetic functions etc. Printout is a strong point - rows/columns can be put into italic/bold etc, and prints draft, NLO or even sideways! Can't sort and can't just save data or structure of a spreadsheet, but maximum size of spreadsheet is claimed to be 320k. You can use the data from a spreadsheet in the graphics module directly. The manual is, however, pretty useless.

PLUSSES - MINUSES

- ▲ Good, full-featured easy to use spreadsheet
- ▲ Prints in draft, NLO or even sideways
- ▲ Maximum size of spreadsheet 320k
- ▲ Can transfer data directly to graphics module
- ▲ Can drive 24-pin printouts
- ▼ 'Save' options not as versatile as SuperCalc

Cracker turbo

£49.00 • Paperback Software • 0245 265017

A spreadsheet designed with advanced calculating power firmly in mind, including statistical functions. The screen layout is totally defined by the user, and cell value calculations can almost be full programs, e.g. DO... WHILE. It might prove too complex if all you want is simple spreadsheet operations. The screen messages are very helpful though. Turbo is claimed to be faster than Cracker 2 though sometimes isn't noticeably so.

PLUSSES - MINUSES

- ▲ Can cope with very complex formulae
- ▲ Flexible screen format defined by the user
- ▲ On-screen prompts are very clear
- ▲ Graphs/charts can be automatically produced
- ▼ Documentation is large, but obscure and confusing
- ▼ You've got to do a lot of work just to get started
- ▼ Very complex for quick, simple applications
- ▼ Needs some programming skills to get the most out of it
- ▼ Free workspace is on the small side (17k) although memory is used efficiently

SuperCalc 2

£69.95 • Amsoft/Softim • 091 510 8787

The best selling spreadsheet, officially endorsed by Amstrad. SuperCalc 2 is broadly similar to ScratchPad Plus, but it has a smaller workspace and is less flexible about the allowed spreadsheet dimensions.

You can store sequences of commands for repetitive

calculations. Price includes VAT and p&p.

PLUSSES - MINUSES

- ▲ Excellent manual - sections for beginners and experts.
- ▲ Stores commands to run from files
- ▲ "Data Interchanger" allows you to transfer spreadsheet data to other applications
- ▲ Comprehensive range of calculation functions available
- ▲ Screen can be split into 2 windows
- ▼ Spreadsheet is limited by memory size
- ▼ No graphical output facilities

First Calc

£29.95 • Minerva Systems • 0392 437756

Touted as a quick and simple to use program for the beginner, this is nevertheless quite a powerful spreadsheet, with a large capacity, ability to replicate formulae, export etc. Really it's not vastly more user-friendly than the rest but a good value package all the same.

PLUSSES - MINUSES

- ▲ A lot of program for the money
- ▲ Good tutorials with demo files
- ▲ Simple to use but reasonably sophisticated
- ▼ Not much easier to use than more powerful packages
- ▼ Program is limited by the memory capacity of the PCW (300 - 400 filled cells)

Easy to use

Graphics

You can use a graphics package to create and store diagrams and drawings on disc, to be amended, adjusted or printed out at will.

There are three main types of graphics package: art, technical drawing and graph plotting programs. In art packages the emphasis is on designs and pictures, with freehand drawing facilities, a selection of pretty text fonts and a variety of patterns to fill areas with. These are made much more effective and easier to use if you have a mouse.

Technical drawing packages concentrate on shapes, such as squares and polygons, lines and labels. Finally graph

Powerful

Best general buy

plotters will take your data and turn them into bar charts, pie charts and so on. 9512 owners will have to buy a dot matrix printer to do all this, of course.

Master Paint

£19.95 • Database Software • 0625 878888

A WIMP environment graphics package (windows, icons, menus, and pointer) which will run with Kempston, AMX or Electric Studio mice. Usual facilities for drawing curved or straight lines, polygons, boxes, circles and ellipses, and a host of 'fill' patterns. 'Undo' function and eraser facility, plus the ability to zoom in on a part of the picture.

PLUSES • MINUSES

- ▲ WIMP environment makes it easy to use
- ▲ Zoom function lets you fine-tune your pictures
- ▲ Good range of effects
- ▲ Undo and erase facilities
- ▼ Text fonts are boring
- ▼ Can't move large blocks with the copy function

MasterScan

£69.95 • Database Software • 0625 878888

A device which clips on to your printer head and scans pictures, sending the digitised result to disc. You can then use the pictures in desktop publications or in other graphics packages, such as Master Paint. Very useful for newletter production but the claims for Master Scan as a low-cost fax machine are grandiose - the quality of scanned text is poor if the text is anything less than headline size.

PLUSES • MINUSES

- ▲ Simple method of getting good digitised graphics
- ▲ Suitable for all desktop publishing programs
- ▲ Contrast control useful
- ▼ Quality of scanned text is bad - no good for faxes
- ▼ Problems with illustrations containing lots of grey

Powerful

Lightning BASIC

£24.95 • CP Software • 0993 823463

A very clever add-on to normal Basic which works on three levels. The first contains all the everyday commands, whilst the second and third levels are used for designing icons, characters and sprites. There is something in it or everyone, whether an experienced Basic programmer or a beginner.

PLUSES • MINUSES

- ▲ Simple and easy to use
- ▲ Makes simple Basic programs look really professional
- ▲ Good fun to use
- ▼ Documentation can be unclear
- ▼ Printed output is coarse draft quality
- ▼ Can only cope with simple graphics

Powerful

Complement Fonts & Borders

£12.50 • Dragonfly Designs • N/A

Although it can be used with all the main DTP packages, this latest complement disc was designed to work alongside Stop Press. The 11 fonts supplied on the disc show consistent good design and artistic flair and are easily loaded.

PLUSES • MINUSES

- ▲ The fonts provide a very professional finish.
- ▲ It is possible to rotate and reverse elements.
- ▲ Very user-friendly.
- ▼ Setting up borders tends to be difficult and time-consuming.
- ▼ Printed output could be better (but it is still above average).

Signwriter

£29.95 • Wight Scientific • 081 858 2699

Offers the widest range of features of any of the poster printing programs. Signwriter provides a range of 20 fonts, some of them very imaginative. Ideal for posters.

PLUSES • MINUSES

- ▲ You can redesign fonts and design your own symbols.
- ▲ A wide range of interesting fonts is available
- ▼ Not very user-friendly.
- ▼ Font design is slow.

Stop Press

£49.95 • AMS • 0625 878888

Though touted as a DTP program, Stop Press is an excellent graphics package. Can present data in the form of graphs, pie charts etc., and has the usual range of facilities to draw and fill triangles, boxes and so on plus a very good 'zoom' option which lets you examine the effect of changes in great detail.

PLUSES • MINUSES

- ▲ Good graph drawing facilities
- ▲ Can design your own area fill patterns
- ▲ Good range of clip art, which you can modify if you wish
- ▲ Can superimpose one image on another
- ▲ Works with AMX and Kempston mice
- ▲ Is also a good DTP package
- ▼ Undoing wrongly placed text is difficult

AYE PLUS

£24.95 • CP Software • 0993 823463

The full title is 'All you ever wanted to know about graphics, the universe and everything on PCW 8256/8512 ... but were afraid to ask PLUS' Phew. A wide range of little programs to do graphic things on the PCW like smooth scrolling, defining windows, moving sprites around. The programs are written in assembler, with the source code provided if you want to see how to program them for yourself and adapt the routines.

PLUSES • MINUSES

- ▲ Wide range of useful functions
- ▲ Can be used from BASIC, machine code, or other language
- ▲ The assembler source code is supplied
- ▲ Inexpensive
- ▲ Good manual
- ▲ CP don't mind you using their routines in programs you sell
- ▼ A bit long-winded to use from BASIC
- ▼ No easy way of loading just the routines you want

Page Magic, Disc Image Kit, Disc Poster Kit

£13.50 each • HD Design • 04867 81394

Clip art collection with a difference. This suite of three ready-made design aids offers a wide range of additions to your text. Page Magic contains a series of sporting images and digitised male and female shots, together with a handy selection of frames and borders. Image Kit has a range of images, from Spitfires to Buddha, whilst Poster Kit offers an excellent collection of print styles, which reproduce with astounding clarity.

PLUSES

- ▲ Poster Kit contains ready made words such as 'Fete' and 'Sale'
- ▲ Excellent visual clarity

VIDI PCW

£79.99 • Rombo Productions • 0506 414631

A very similar package to the Electric Studio digitiser, not much to choose between the two. Rombo's works with the Fleet Street Editor, Electric Studio's with Newsdesk International.

PLUSES • MINUSES

- ▲ Text can be inserted from within the program
- ▲ 16 levels of shading

- ▲ Can print images to screen in defined order and time apart.
- ▼ Unhelpful manual

MD Cleartext

£13.50 • Exemplar Design • n/a

Designed for use in conjunction with MicroDesign, MD Cleartext allows you to create your own type styles to liven up your work. There is a range of non-English fonts on offer as well, including the accents in the French, German and Spanish languages. An excellent add-on to an excellent DTP program.

PLUSES

- ▲ Developed in conjunction with Creative Technology themselves, resulting in a comprehensive appreciation of ▲ MicroDesign's workings.
- ▲ No jagged edges or loss of definition when large characters are printed out
- ▲ Produced from a quality and highly reputed source



The choice of games for the PCW is far from extensive in comparison with what is on offer for other machines. However, the range is widening, and the split between text-only adventures and graphics-based games is becoming more even. Text-based games rely heavily on the use of parsers, which help you navigate an adventure by analysing words individually, and pointing you in the right direction with clues in the results of their findings. The ability of a parser is, not surprisingly, responsible for the success or failure of a game; bad parsing can ruin an adventure. Where graphics are concerned, quality, originality and speed are on the increase. What is on display here represents the best of the games currently available for the PCW. Each game is given marks out of five for its various features.

Academy (Tau Ceti II)

£14.95 • CRL • 081 533 2918 • 8000s only

The sequel to Tau Ceti. To qualify as an advanced skimmer pilot, you must complete successfully 20 missions. Blast enemy craft with your personally designed skimmer.

GRAPHICS	4/5	ADDICTIVENESS	5/5
LASTING APPEAL	4/5	VALUE VERDICT	5/5

Avon

£14.95 • Topologika • 0733 244682 • All PCWs

Based on the world and work of Shakespeare, this text-only adventure puts many a puzzler to even the most well-versed student of the bard. A handy help mode will get you out of the tighter corners. Compulsive gameplay!

ADDICTIVENESS	4/5	ATMOSPHERE	4/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Backgammon

£12.95 • CP Software • 0993 823463 • All PCWs

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A fairly good implementation of the gambling board-game. Playing speed is easily alterable and is totally unrelated to the games level of skill control.

RANGE OF FEATURES	4/5	STRENGTH OF PLAY	3/5
GRAPHICS	4/5	DOCUMENTATION	3/5

Blackstar

£14.95 • CRL • 081 533 2918 • 8000s only

A traditional text adventure with large playing area. You explore Castle Blackstar in search of a power orb.

ATMOSPHERE	4/5	INTERACTION	2/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Bounder

£13.95 • Gremlin • 0742 753423 • 8000s only

A graphics bouncing-ball game. You have to direct the ball over a treacherous network of squares & hexagons. Persevere – or use the cheat mode!

GRAPHICS	4/5	ADDICTIVENESS	3/5
LASTING APPEAL	3/5	VALUE VERDICT	4/5

Brian Clough's Fortunes

£19.99 • CDS • 0302 321134 • All PCWs

A cross between Monopoly and Football Manager, combining board and PCW. Go for league and cup success – but keep the bank manager happy too!

GRAPHICS	2/5	ADDICTIVENESS	4/5
LASTING APPEAL	4/5	VALUE VERDICT	4/5

Bridge Player Galactica 2150

£19.95 • CP Software • 0993 823463 • All PCWs

The upgraded Bridge Player 2000. Excellent Tutor mode with hands written by Nichola Gardener of the London Bridge School. Retains strong play.

GRAPHICS	3/5	STRENGTH OF PLAY	4/5
LASTING APPEAL	4/5	VALUE VERDICT	3/5

Classic Games

£19.95 • CP Software • 0993 823463 • All PCWs

A compilation of classic 'thinking' games on one disc: Clock Chess, Bridge Player, Backgammon and Draughts. Excellent value for money.

Clock Chess 89

£19.95 • CP Software • 0993 823463 • All PCWs

One of the better PCW chess programs. You can alter the level of play by specifying a time limit. Capable of very strong play and the 3D graphics are excellent.

GRAPHICS	4/5	STRENGTH OF PLAY	5/5
RANGE OF FEATURES	5/5	VALUE VERDICT	5/5

Colossus Chess 4.0

£19.99 • CDS Software • 0302 321134 • All PCWs

A very strong chess game which manages to use time which you spend thinking to plan its strategy. Bags of features, including blindfold games.

GRAPHICS	3/5	STRENGTH OF PLAY	3/5
LASTING APPEAL	4/5	VALUE VERDICT	3/5

Corruption

£24.95 • Rainbird • 0666 504 326 • All PCWs

Takes you into the heady world of stocks and shares where making money is what it's all about. There's something rotten in the state of Scott Electronics and it's up to you to find out what.

ATMOSPHERE	4/5	INTERACTION	5/5
CHALLENGE	4/5	VALUE VERDICT	5/5

Cyrus II Chess

£15.95 • Amsoft • 0279 454555 • All PCWs

Chess game with a stunningly detailed 3-D display. The play is quite strong, with several handy features like allowing you to take back a move.

GRAPHICS	5/5	STRENGTH OF PLAY	3/5
LASTING APPEAL	4/5	VALUE VERDICT	4/5

Double t Patience

£14.95 • Thurston Techniques • 0395 277496 • All PCWs

Six well-known card games (from Poker Patience to Pairs) to be played either alone or against the computer.

GRAPHICS	2/5	ADDICTIVENESS	5/5
LASTING APPEAL	4/5	VALUE VERDICT	3/5

Fish

£24.99 • Rainbird • 0666 504 326 • All PCWs

The underwater world of Hydropolis is under threat from a gang of interdimensional anarchists. They've stolen a focus wheel and dismantled it; your job is to get it back. Excellent graphics.

ATMOSPHERE	5/5	INTERACTION	4/5
CHALLENGE	4/5	VALUE VERDICT	5/5

Forestland

£14.95 • Classic Quests/Audiogenic • 081 861 1166

You're in a forest and you're not sure how you got there, whether you are asleep or awake, and how the devil to get out. You need your wits about you in this game to puzzle your way out of the wicked wood.

CHALLENGE	3/5	ADDICTIVENESS	4/5
ATMOSPHERE	3/5	VALUE VERDICT	10/15

Gnome Ranger

£14.95 • Level 9 • 0344 487597 • All PCWs

You follow the adventures of Ingrid Bottomlow, the intrapud gnome, through a fairy tale landscape full of compelling puzzles. Humorous and rather quaint.

ATMOSPHERE	3/5	INTERACTION	3/5
CHALLENGE	3/5	VALUE VERDICT	4/5

Goblin Towers

£14.95 • Classic Quests/Audiogenic • 081 861 1166

A game for beginners to adventuring, Goblin Towers sees you as a brave warrior, seeking to retrieve treasure from a goblin-ridden castle.

ATMOSPHERE	3/5	ADDICTIVENESS	3/5
CHALLENGE	3/5	VALUE VERDICT	9/15

Green

£12.00 • Classic Software • All PCWs

Race against the Global Warming in this new eco-drama game set in forestland threatened by over zealous lumberjacks. Preserve your morality points, perfect your strategy, and you might save the trees from destruction.

ATMOSPHERE	4/5	CHALLENGE	3/5
GAMEPLAY	4/5	VALUE VERDICT	4/5

Guild of Thieves

£24.95 • Rainbird • 0666 504 326 • 8000s only

To join the select Guild of Thieves in Kerovnia, you first have to show your worth by fleeing an island of all its treasures. An excellent adventure!

ATMOSPHERE	5/5	INTERACTION	4/5
CHALLENGE	4/5	VALUE VERDICT	5/5

Head Coach

£15.95 • DGA/Coda • 061 330 0184 • All PCWs

You coach an American Football team, picking players and deciding tactics against real NFL teams and players. Incredibly detailed simulation – a must for NFL fans!

ATMOSPHERE	4/5	INTERACTION	5/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Head Over Heels

£14.95 • Ocean • 061 832 6633 • 8000s only

A superlative, compulsive 3D arcade adventure where you control either Head or Heels. Escape from Castle Blacktooth and free the Empire's enslaved planets.

GRAPHICS	5/5	ADDICTIVENESS	5/5
LASTING APPEAL	5/5	VALUE VERDICT	5/5

Ingrid's Back

£19.95 • Level 9 • 0344 487597 • All PCWs

Sequel to Gnome Ranger in which Ingrid returns to Little Moaning to find it under threat from Jasper Quickbuck who wants to replace it with a yuppie estate. Adventure in 3 parts.

ATMOSPHERE	4/5	INTERACTION	4/5
CHALLENGE	5/5	VALUE VERDICT	4/5

Jinxster

£24.95 • Rainbird • 0666 504326 • All PCWs

This one's all about saving the civilisation of a place call Aquitania from the wicked Green Witches. All you have to do is find and reassemble a magic bracelet and redirect its errant powers. A very atmospheric game.

ATMOSPHERE	5/5	INTERACTION	4/5
CHALLENGE	5/5	VALUE VERDICT	4/5

Knightorc

£19.95 • Level 9 • 0934 814450 • All PCWs

You are an orc in this typical Level 9 adventure by the name of Gridleguts. An addictive game with lots of action, plenty to explore and mind-bending puzzles.

ATMOSPHERE	5/5	INTERACTION	5/5
CHALLENGE	5/5	VALUE VERDICT	5/5

Lancelot

£14.95 • Mandarin/Level 9 • 0625 878888 • All PCWs

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A game in three parts which recounts the adventures of Lancelot. Manufacturers have vividly created an Arthurian world in which points are awarded for displays of chivalry, valour or benevolence. The game permits a full range of powerful commands.

ATMOSPHERE	5/5	INTERACTION	5/5
CHALLENGE	4/5	VALUE VERDICT	5/5

Mindfighter

£24.99 • Abstract Concepts/Activision • 01 431 1101 • 8000s only

An adventure game set in post-holocaust Southampton. Hero is a psychic 11 year old boy who can change himself into all different kinds of animals, and who has accidentally projected himself into the future. It's up to him to change the course of events and prevent nuclear war.

ATMOSPHERE	5/5	INTERACTION	3/5
CHALLENGE	5/5	VALUE VERDICT	4/5

Myth

£22 (membership) • Magnetic Scrolls • 0279 726585 • All PCWs

Join Official Secrets and you can have access to this excellent adventure game, where you find yourself cast as Poseidon - minus his godly powers! Rescue your fate from the lap of the gods.

ADDICTIVENESS 4/5	ATMOSPHERE 4/5
CHALLENGE 4/5	VALUE VERDICT 5/5

The Pawn

£24.95 • Rainbird • 0666 504 326 • All PCWs

An excellent adventure with dozens of superb screen illustrations, zany characters and a host of baffling puzzles. Will keep you entranced for hours.

ATMOSPHERE	5/5	INTERACTION	5/5
CHALLENGE	5/5	VALUE VERDICT	5/5

Return to Doom

£12.95 • Topologika • 0733 244682 • All PCWs

Sequel to Countdown to Doom; you're back on the planet Doomawanga again to track down the ambassador Regina who has been kidnapped by some very unpleasant robots. Another text-only adventure game.

ATMOSPHERE	3/5	INTERACTION	2/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Scapeghost

£19.95 • Level 9 • 0934 814450 • All PCWs

You're a ghost with a mission - to catch the crooks who framed you on earth. You tramp your way through spooky cemeteries - solve the puzzles and brave the vivid graphics, and justice will be done.

ATMOSPHERE 4/5	CHALLENGE 4/5
GRAPHICS 5/5	VALUE VERDICT 4/5

Silicon Dreams

£19.95 • Rainbird • 0666 504 326 • All PCWs

A trilogy of intriguing adventure games. You are secret agent Kim Kimberley saving Snowball 9 from almost certain doom! With a humorous novella.

ATMOSPHERE	4/5	INTERACTION	4/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Starglider

£24.95 • Rainbird • 0666 504 326 • 8000s only

A sophisticated shoot-'em-up with 3D vector graphics and a dose of strategy too. Your task is to save Novenia, helped by a complex playing guide.

GRAPHICS	5/5	ADDICTIVENESS	4/5
LASTING APPEAL	4/5	VALUE VERDICT	5/5

Steve Davis Snooker

£19.99 • CDS • 0302 321134 • All PCWs

Surprisingly realistic simulation of both pool and snooker games - not as easy as it looks either! Foul shots, breaks and allows for spin, side, strength of shot. Good value, despite all the balls being greens!

GRAPHICS	2/5	ADDICTIVENESS	3/5
LASTING APPEAL	3/5	VALUE VERDICT	3/5

Strike Force Harrier

£19.95 • Mirrorsoft • 01-377 4645 • 8000s only

A combat simulation of a Hawker Harrier, designed in conjunction with British Aerospace. Very detailed and realistic but you'll need to put in a few hours with the manual to get off the ground.

GRAPHICS	4/5	ADDICTIVENESS	3/5
LASTING APPEAL	3/5	VALUE VERDICT	3/5

Time and Magik

£14.95 • Mandarin Software • 0625 879920 • All PCWs

An excellent trilogy of time travel adventure which can be played in any order. Your task is to protect the history of the world from the destructive timelords - another very atmospheric game.

ATMOSPHERE	5/5	INTERACTION	4/5
CHALLENGE	5/5	VALUE VERDICT	5/5

Tetris

£19.99 • Mirrorsoft • 01-377 4837 • 8000s only

You fit together bricks of various shapes that drop out of the sky at the bottom of the screen. The better the fit, the higher your score. One of those ridiculously simple ideas which is very addictive!

GRAPHICS	3/5	ADDICTIVENESS	5/5
LASTING APPEAL	4/5	VALUE VERDICT	5/5

Tomahawk

£19.95 • Digital Int. • 0276 684959 • All PCWs

A sophisticated Apache helicopter flight simulator. Impressive cockpit view graphics as you engage in combat missions - can be used with a joystick too.

GRAPHICS	4/5	ADDICTIVENESS	3/5
LASTING APPEAL	4/5	VALUE VERDICT	4/5

UK Trivia Treasure Hunt

£24.95 • IMC Software • 0604 54814 • All PCWs

Pit your wits against the program in this carefully planned game which would have Anka working overtime. The quest for success is tricky; correct answers take you to various locations nationwide - but watch your fuel gauge or you'll be back to square one.

ATMOSPHERE	3/5	GRAPHICS	/5
CHALLENGE	3/5	INTERACTION	2/5

Ultimate Quiz

£14.95 • DGC Software • 0337 7444 • All PCWs

Ten quizzes on topics as diverse as the Highway Code and the Italian language. Clean screens and an easy to use program make Ultimate Quiz excellent entertainment and good value for money too.

GRAPHICS	5/5	CHALLENGE	4/5
LASTING APPEAL	3/5	VALUE VERDICT	5/5

Witch Hunt

£11.50 • Classic Quests/Audiogenic • 081 861 1166

In Witch Hunt, you have been changed from an evil scheming rotter into a positively charming person - and you are not at all happy about it. To be returned to your former state, you have to gather the ingredients to give to the warty witch who can convert you back.

ATMOSPHERE	3/5	ADDICTIVENESS	3/5
CHALLENGE	4/5	VALUE VERDICT	10/15

World of soccer

£15.95 • DGA/Coda • 061 330 0184 • All PCWs

A soccer management simulation game; you select squads of players for your international team and guide them through the European and World Cups. Gives a good insight into the kind of strategic thinking required.

ATMOSPHERE	4/5	INTERACTION	3/5
CHALLENGE	4/5	VALUE VERDICT	4/5

Yes Chancellor

£14.95 • Topologika • 0733 244682 • All PCWs

Become John Major for a day with this intense game/challenge written in BASIC. Whether it's budget balance or inflation control at stake, the Unions and the voters still have to be kept happy. Now is your chance to see if you can do it better than the professionals at Westminster!

ATMOSPHERE 3/5	INTERACTION 3/5
CHALLENGE 4/5	VALUE VERDICT 4/5

NEXT MONTH

The guide continues with the categories of WORD PROCESSORS, ACCOUNTS/PAYROLL, UTILITIES and DTP. The month after will cover DATABASES, EDUCATIONAL SOFTWARE, COMMUNICATIONS and PROGRAMMING, and the month after that it's back to this month's topics.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each.

Meanwhile, if you are aware of any significant errors or omissions in the file as published, please let us know.

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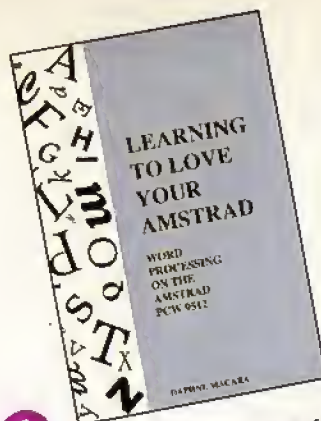
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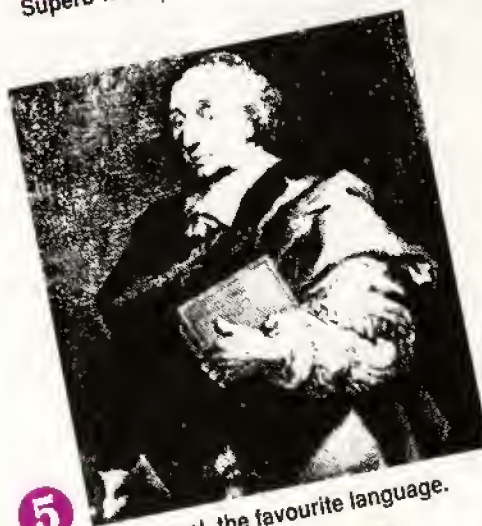
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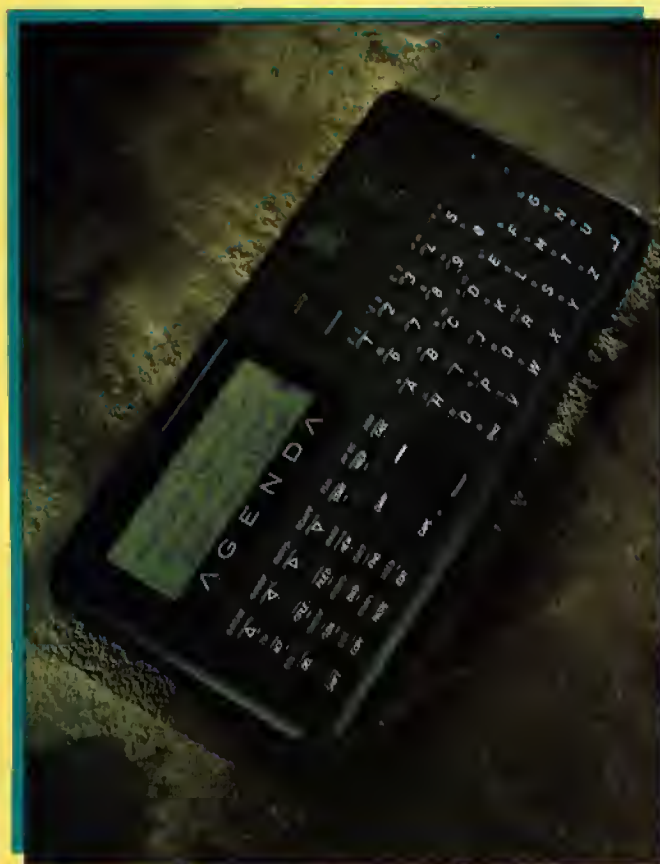


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Don't despair those of you who missed last month's competition in which we were giving away a free AgendA to each of the three lucky winners. You can now – available through these pages alone – buy a £195 AgendA with up to £60-worth of accessories for a special all-in price of £199. And that's inclusive of VAT.

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You can use the AgendA absolutely anywhere, both to help you organise your daily life and to produce letters, reports, memos and notes which can easily be transferred to your PCW. Thanks to a comprehensive keyboard (A-Z keys, function keys, numeric keypad and rapid text-entry microwriting keys) the AgendA is fast and easy to use despite its small size. And learning to Microwrite takes less than half an hour ...

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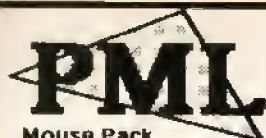
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POSTSCRIPT

We answer a collection of your latest letters. This month's batch of letters include missives sent in by aggrieved subscribers in search of magnifying glasses, a plea for help from a builder-wanting to know how his PCW can help him in his chosen profession and finally a plaintive cry from a 9512-toting father desperately trying to communicate with his 8000 series-owning children. If you would like to contribute to these pages, then sit right down, write us a letter and send it to Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2XF.

Redressing the balance

I write in reply to your review of Cashmaster in the May issue (44). While I agree on the whole with your review, Mr Frost argues that Cashmaster will accept non-existent dates such as 31st February and April, but I'm afraid this just isn't true. If his copy does, then I'd certainly be interested to see it. I agree with the point about it being rather too easy to delete entries and so this has been improved - as has the profit and loss report.

There will also shortly be a save and continue option. I'm sorry he had such a downer on the manual. Has he ever thought of Flippancy as a virtue, and that life is just too short to be otherwise. It has, however, often been said that the programmer shouldn't write the manual - guilty as charged. Actually, I even printed it myself too.

Martin Evans
Programmer (Intraset Ltd)

8000 Plus: Thanks for your letter.

Photo finish

I read with interest your reply to Dr Kays of Bristol about a database for recording photographic information.

I totally agree with you about the suitability of LocoFile to do the job. As a newspaper photographer covering on average 1,500 jobs a year keeping track of negatives can be a time-consuming job. But with my own trusty PCW 8256, with memory upgrade, I can, in a flash, find the negative I need.

Last March I did do a review of Fotocall for the publishers but, although, there were some good ideas in the suite of programs, I did find a few bugs in the programs and the database was slow compared with LocoFile and not as flexible.

Thanks for such an informative magazine. I look forward each month to seeing it on the newsagents' shelves.

Tony Stocks
Sutton in Ashfield

8000 Plus: Of course, LocoFile isn't the only alternative. But until Fotocall

reaches a stage at which it can be constructively reviewed, it remains one of the best database options around.

Hard Times

Sorry folks, I don't like your new layout style very much.

I used to mutter about the pink printing on purple background style at times, then put the blame on middle-aged vision, but the font selected for many of the articles now is a real problem. It has a spidery feel and is difficult to read.

There are some improvements in layout; the 'Turf Luck' and 'Big Spender' articles are attractive to look at, but News Plus in particular is a mess.

I suspect that someone has told you to be more serious; you haven't been bought out by Amstrad's accountants, have you?

Okay, I use my PCW fairly seriously, but I get enough technical and scientific literature to read in the office. Your magazine impresses with its content; don't change that as well, will you?

Mike Morrish
Romsey, Hampshire

Magnifying the problem

I dashed back to the office at lunchtime to make time for a quick browse through my June issue of 8000 Plus before the boss returned (I've tried to read 8000 Plus when he's around but there is a tendency for it to 'walk').

Picture my disappointment when I discovered that the free gift was missing from my copy. I asked my newsagent but she just shook her head, although she did suggest the optician next door might have one.

No, the optician doesn't take 8000 Plus (well, he might do) but he does sell magnifying glasses.

I have been an 8000 Plus reader since issue one (about the same time as we got our Amstrad at work) and the magazine was partly responsible for the purchase of my own Amstrad a few months later.

So, as you can imagine, with my full-time job and my part-time writing aspirations I spend a great deal of time 'squinting' between the two machines and now the same applies to my favourite magazine.

Joking apart, 8000 Plus is still my favourite, and the benefits of a smaller typeface are obvious in terms of content, but I don't think my eyes could stand too much white on black in that size.

Carol Balkham
Bedfordshire

8000 Plus: And we thought we were doing you all a favour. Still, you may have noticed that, although we've stayed with the Times serif typeface (ie, the letters have little squiggly bits at the top and bottom) this month we've made it bigger in an effort to vanquish once and for all those pesky spiders.

As for your conjectures, Mr Morrish, I'm afraid we don't have anything to do with Amstrad apart from the fact that we write about their personal computer; and I can assure you that we haven't been bought out by anyone, either. Maybe you're confusing us with another magazine.

Filing system

Having read your rave review of Lindex (December 1989), I decided to invest in a copy of the program. Organisation of LocoScript files has never been my strong point - I rarely used the Identify Text facility - but now, thanks to Lindex, I no longer spend frustrating hours searching for the file I need. The program is everything you said: easy to install and operate, absolutely invaluable, and extremely good value. I wholeheartedly recommend it to any LocoScript user, even to those who think their discs are already well-organised.

PS: Although Festival Software Services is also based in Bradford, this is an entirely unsolicited testimonial; I



am in no way connected with the Vicar of the Church who is raising money for Charity through the sale of Lindex.

**Pamela J Hill
Bradford**

8000 Plus: If you've read last month's issue, you'll know that Festival Software Services have just released an upgrade to Lindex called, funnily enough, Superlindex. The main difference between this program and its predecessor is that it can handle non-*LocoScript* files as well. Have a read of the June issue for further information. All proceeds continue to go to charity.

Talking trio

First of all I do apologise for my poor English, as I have no practice since ages. I would be very grateful if you could let me have some information. Is there any possibility of converting 720K discs to 180K discs?

I now use a PCW 9512 and my sons are using the PCW 8256 and 8512. They are at a boarding school and we used to communicate by exchanging discs, but with my new 9512 it seems not to be possible any more. There is only the program copy 8000 and we need it the other way round. Many thanks for your kind attention.

**Peter Rohricht
Raitenbach, Germany**

8000 Plus: What you need is Three Inch Software's 9512 Rescue Kit. Put simply, what this does is enable the 9512 to format and write to low capacity discs which can then be read either by an 8256 or an 8512. In other words, it provides the second half of the 8000 COPY facility you mentioned. The Rescue Kit costs £9.95; talk to Three Inch Software on 081 5462754.

Building bricks

I hope you will be able to help me. Nik Holmes of Creative Technology recommended you. I am a builder and run a PCW 8512 using LocoScript, Money Manager and McGregor estimating software as advertised in your magazine.

I have recently been thinking of obtaining software for the purpose of drawing building plans. Do you know of any that would run on my machine or would I have to upgrade it. If so, with what? Or do I simply have to buy a complete new outfit? I have Micro Design II but it's not quite what I need.

**A Blackwell
Salisbury**

8000 Plus: Try PCWDraw from HTB Computing (0794 516279). It costs £39.95 and was first reviewed in the magazine in the July '89 issue, page 41.

Exploding myths

First, let's get the bouquets and brickbats out of the way. I must congratulate

Dave Gregg on his extremely useful article demystifying programming and making the PCW a time-saver for really boring chores. His program for arranging appointments and sending memos is ideal for anyone who has to run an amateur theatre company or an orchestra. I hope to spot more useful tips in the months to come.

Now a plea for a bit of advice. I have a single disc drive 9512 and, in my work, it would be useful to have a portable of some sort to type up to 10,000 words of text and then be able to load it into my machine at home and edit it, so I was interested in the piece on the Atari Portfolio.

Seeking more advice, I went to my friendly neighbourhood computer shop and they took a deep breath and said: "Ooh, can't be done. Impossible that. There's nothing on the market that will talk to a 9512."

So is there or isn't there? And if there is, who do I talk to to find out more about it?

I suppose it's inevitable that I sign off saying that the magazine is essential reading matter...Keep up the good work.

**Guy Morgan
York**

8000 Plus: It rather sounds like you've been fed a line of nonsense. You can port data files from the Agenda to the 9512 in exactly the same way as to an 8000 series machine. Read pages 34 and 35 of our February issue to find out how.

Who's sexist now?

Racism is surely racism, ageism surely ageism, baldism surely baldism and sexism surely sexism even when practised by blacks, wrinklies, baldies or women (Actually, I am male, black, bald and 68).

Your Chauvinist Dig in May's 8000 Plus gave a boost to 'The World's Who's Who of Women.' Surely the title of this tome is most sexist. Just imagine if 'Who's Who' was changed to 'Who's Who (Women Excluded)', what an outcry there would be!

Even my name seems to offend some people!

PS: Stanley Baldwin also had trouble with the hirsute.

**Manley Whiteman
Luton**

8000 Plus: Point taken, Mr Whiteman. We published this story really just to show that a body of people are prepared to take some sort of stand against sexism - regardless of whether it is male or female-oriented - in the computer industry. Naturally, it's a cause that we endorse; unfortunately, we can't answer for other industries. Maybe you should write to the book's publishers!

Those of you who would like to find out more about OASIS (the Organisation Against Sexism in Software) should write to them at 3 Alden Court, Stanley Road, Wimbledon, London SW19 8RD.

Accounting to taste

We have been using a PCW 8512 for the past four years and have subscribed to 8000 Plus since issue 1 in 1986.

In that time, your software reviews have been used to assist in our purchasing decisions.

Cornix Software are our main accounting and invoicing programs. We felt that a word or praise from an end user of their simple and reliable programs might be of benefit to any small business that requires an uncomplicated and well-documented accounting system. We have found the programs very easy to use with a really superb hot line support.

Perhaps you may find the foregoing of interest when you next look at accounting and invoicing software.

8000 Plus is an invaluable source of reliable information for those of us who were only dimly aware of what PIP and side 2 of the CP/M disc was for.

**Andrew Phillips
Minehead**

8000 Plus: Thanks very much for your letter, Andrew. We've always been very impressed with the software that Cornix produce: it's always easy to use, very professionally presented and excellently documented. I think you'll find that we featured the program you're talking about on our 'best in PCW accounting' spread on pages 18 and 19 of the May issue. We agree: it's a cracker.

Which upgrade?

With my 8256, I got a copy of Mini Office Professional which I soon got the hang of so I decided to send away for the Spellchecker upgrade to help with my app.. apau.. apiling.. terrible spelling. After several weeks of waiting, my cheque was returned, with a message stating that Database Software were having technical problems, and so were unable to supply the desired item.

Not to be put off I decided to invest in LocoScript 2 with LocoSpell. Having received this parcel of goodies not a week ago, and reading through the piles of literature that accompanied the discs, it seems that if I want to be able to use the dictionary properly, I will need a memory upgrade.

Here is my question. Having avidly scanned your magazines, I have discovered three possible alternatives:

- 1) Fit a new disc drive to create a drive B
- 2) Install a memory upgrade
- 3) Buy a SCA plug-in Rampac

I would prefer not to have to take my 8256 apart, so am leaning towards the Rampac. Would, do you think, this be the best possible option open to me? I would value your advice and help on this matter.

**Jane Fines
Spalding, Lincs**

8000 Plus: There's no doubt at all that 8256 owners have the

most to gain when it comes to the SCA Rampac. You get a double-size memory expansion without having to either pull your machine apart or send it away. It's definitely the upgrade that we would recommend for you. The Rampac currently costs £99 plus VAT. Call SCA on 0903 700288.



"TWO MEN HERE DEAR - THEY SAY YOUR 8000+ SUBSCRIPTIONS DUE"

Make a date

Your magazine, 8000 Plus, is excellent for PCW owners like me but, how about putting the subscription expiry date on the address label? The first a subscriber knows that it has expired is when no current copy arrives and up here in the frozen north, you can't be sure of getting one on the magazine racks of the high street booksellers.

DM MacDonald
Glasgow

8000 Plus: Why not indeed? Sounds like a good idea; I'll pass your letter on to the department concerned.

Get cracking!

I read the letter from Ashley Hood in issue 45 and was prompted by it to write with my experience. I bought Cracker II from your good selves about six weeks ago. As yet, I have not managed to do any of the things it purports to be able to do. Mainly because of the way the manual has been written. Apart from grammatical errors of which we are all at times guilty, it is very difficult to follow, and gives few step by step examples.

What is needed is a book like JM Hughes "All in One Business Computing" only written with Cracker II in mind. Articles in your magazine might help, but one has to wait ages to have the subject covered. I have written twice to Paperback and get no replies.

G Morley
Taunton

8000 Plus: Following the publication of Ashley's letter last month, we've received loads of letters just like yours. Consequently, next month sees the start of a brand new Cracker II tutorial series. Sit tight, everybody, and we'll do our best to try and answer all of your questions.

Video star

Regarding the letter by David Bytheway (Postscript June 1990) there is a way he can use his PCW to put text onto videos. The Rombo VIDI Digitiser offers facilities for taking screens designed on a desktop publisher and allowing them to be recorded onto video via the Video In/Out sockets of its interface. It is not possible to just write a small portion of the screen leaving the rest of the picture intact but whole title screens can look quite effective (even if they are in black and white) especially if good quality fonts and clip-art are used.

Rombo VIDI Digitiser available for around £79 from Rombo Productions, 6 Fairbairn Road, Kirkton North, Livingston, Scotland EH54 6TS, telephone 0506 414631.

The digitiser comes complete with several software converters to allow output from most desktop publishers to be converted to VIDI files.

Peter Whelerton
Middlesbrough

8000 Plus: Thanks for the information.

Cross words

Part of Russel Nimmo's letter (issue 45, June 1990) asked if there was a crossword making program available. I have recently written a program that may be what he is looking for.

The program allows the user to state the height and width of the grid and creates an empty grid of that size with a flashing cursor. The cursor can be positioned using the arrow keys to anywhere in the grid. As characters are typed on the keyboard, they are entered on the grid. The cursor can be commanded to move down or across automatically. Other functions are included to change the dimensions of the grid or remove letters from the grid. The finished grid can be saved to disc for later recall.

I have also written a program to load and print the designed crossword grid on the dot matrix printer. It automatically adds the clue numbers. A separate program prints the blank grid and the list of answers. All programs are written in C and compiled to standalone COM files.

If anyone sends me a blank disc with a stamped self-addressed envelope, I will dump the programs on one side (A:drive only). I hope this answers Russel's request.

Alan Baker
Bournemouth

8000 Plus: Thanks for that, Alan. Don't

forget, as we did last month, that Brian Thurston (of Thurston Techniques fame) has produced a program called XWord (£14.95) for any PCW, which allows you to compile crosswords in LocoScript 1 or 2. For further information, talk to Brian Thurston on 0395 277496.

Speaking volumes

I own an Amstrad PCW 8256 and I would like to learn Mallard BASIC. But there is a problem with this. The BASIC manual is like reading an unknown foreign language! Can you recommend another manual which would be an easier guide to learning Mallard BASIC?

Deanne Lewis
Essex

8000 Plus: The two best buys for new programmers in Mallard BASIC are 1) Program Your PCW! by Ian Sinclair (£8.50 from Glentop [071 953 9292]) or 2) Mallard BASIC For the Amstrad PCW8256/8512 and PCW9512 from Locomotive Software (0306 740606). That one costs £9.95.

Hubble, bubble

In reply to your comment on the letter 'Science Report' (page 88, June issue), I would like to remind you of a piece of software produced by me. Slickfit is a method of drawing diagrams of chemical apparatus using clip-art drawn in Stop Press. Having said that, at least one of my customers uses the clip art within MicroDesign.

Gerald Ponting
Eastleigh, Hampshire

8000 Plus: Thanks for your letter, Gerald. Slickfit costs £12.50 and can be obtained from Mr Ponting at 7 Weavers Place, Chandler's Ford, Eastleigh SO5 1TU.



"I LIKE THIS SYMBOL BEST..."

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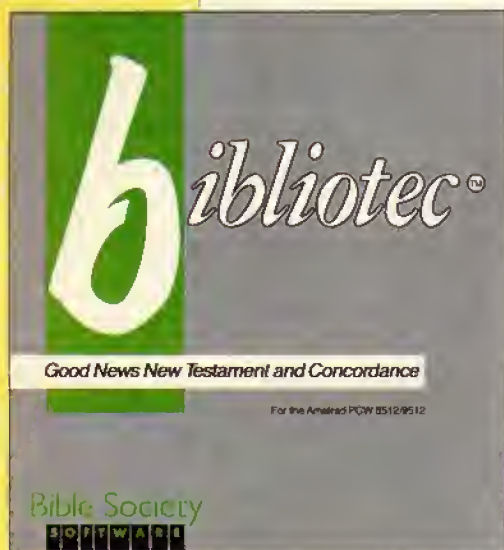
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COMPETITION

Our thought for the day: interested in winning the New Testament – complete with concordance – on 3 inch disc? Then send in your competition answers now!



Anyone who has read last month's 8000 Plus will know just how impressed we were with Bible Society Software's new software release for the PCW – Bibliotec. The first ever New Testament to be committed to two 3 inch discs just for the PCW takes its text from The Good News Bible; it also has full concordance. This means that not only is the bible text easy to read and understand (The Good News Bible uses everyday modern English), the program can also carry out very detailed searches on particular words (complete with locational and/or thematic references) very quickly indeed.

As if that weren't enough, Bible Society Software have incorporated into the program an unusual but eminently useful graph facility. An Absolute bar chart shows you how many times a specific word crops up throughout the twenty-seven books that make up the New Testament; a Relative bar chart, on the other hand, illustrates the relationship between the number of occurrences of a partic-

ular word and the size of the book in which they appear. This helps you distinguish which books are more closely concerned with a particular word or tenet of faith.

So knocked out were we with Bibliotec that we awarded the package an almost unheard of 20 out of 20. And precisely because we know that so many of you out there are involved with bible study of one kind or another, we've decided, in conjunction with Bible Society Software, to give away a free Bibliotec program to the three lucky winners of this month's competition. Not surprisingly, it's got a distinctly biblical feel to it. All you have to do is ring the correct answers and send in your offerings on the back of a postcard to Bible Competition, 8000 Plus, 30 Monmouth Street, Bath BA1 2XF before the 28th July 1990. Good luck!

- | | | | | |
|---|--|------------------|-------------------|------------------|
| 1 | When was The Good News Bible first issued in the UK? | A 1976 | B 1980 | C 1966 |
| 2 | What is the name of the Jewish holy book of instruction? | A The Veda | B The Talmud | C The Koran |
| 3 | Who wrote East of Eden? | A Jeffrey Archer | B Thomas A Kempis | C John Steinbeck |
| 4 | How long was the reign of Pope John Paul I? | A 12 years | B 33 days | C 18 years |
| 5 | In what language were the first New Testament manuscripts written? | A Hebrew | B Latin | C Greek |

May winners

Our congratulations go to William Boxley from Bath, PAG Goulborn from Felixstowe and John Rowan from London who correctly spotted who said what to win their ready-made library of three indispensable PCW titles: Locomotive Software's *Mallard BASIC Reference and Introduction*, erstwhile 8000 Plus editor Rob Ainsley's *Protext – A PCW User's Guide* and, finally, *Easily into LocoScript* by Susan Rogers.

The answers are as follows:

Benjamin Disraeli, Sir Richard Steele, Mark Twain, Thomas Hardy and, lastly, Francis Bacon.

Next month

Hold the line!

Don't miss the second part of our comms special; we will be taking a brief look at all the comms software available for your PCW and working out which represent the best value for money. This month we've logged on to bulletin boards; next month we'll be tackling that all-encompassing subject of E-mail. What is it exactly and what's in it for you? We find out.

The PCW way to WPM

Are you interested in tidying up your keyboard act? Or maybe you're just fed up of hobbling your way, two-fingered, across the keys. Either way, despair no longer. Next month, we will be putting the three best typing tutors currently available on the PCW market through their respective paces and working out which one is the most guaranteed to have you tapping the light fantastic across those letters in as short a time as possible. Buy next month's issue and find out how to go about it.

Cracking good start

Well, we asked you what you thought of it and you didn't hesitate to let us know. Next month sees the start of an apparently long-awaited Cracker 2 tutorial series. So, if you suspect that you may be in need of a spreadsheet, but you're not sure which one, read all about the PCW spreadsheet with the high resolution graphics – from the August issue.

Well, well, well

Interested in calculating your eligibility for any of the means-tested benefits like Family Credit, Income Support, Rent Rebate or last, but by no means least, the good old Community Charge Benefit? Well, the good news is that the Evesham Welfare Benefits Program have recently released their five-year-old workhorse – of the same name – for use on PCWs. We're warning you now: it's not cheap, but it does show you how to work out your entitlement for the Poll Tax Transitional Relief. Next month's review reveals all.

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By popular demand the PCW section has been expanded, and includes the complete *Loco* selection from *File to Font*.

Displaying its usual commitment to be much more than just another software vendor's flog sheet, the *NewStar Software Buyers' Guide and Catalogue* is available free of charge - just call or write for your copy.

There are 64 pages describing

a complete range of IBM PC (and compatible) software, plus a lengthened section covering the best of the PCW software.

Accounts, wordprocessing, database and graphics are all covered.

Check and see if your local software stockist has the *NewStar* catalogue available - and if not, ask them to get some in, but don't delay about getting your free copy!

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A suite of easy to use software tools, designed specifically for the PCW, which enables the user to present information attractively, show figures as graphs or create diagrams.

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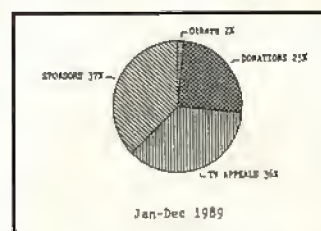
We were there from the launch of the PCW with any CPM software transferred to 3" disk on request; and

our classic CPM applications *Touch'n'Go*, *NewWord* and *Cracker* are still the best in their respective fields.

Several feature data and skill portability to MSDOS (IBM PC) systems, so skills learned on the PCW can be carried forward with no wasted effort.

Cracker 2turbo

Still the only high res graphic spreadsheet for PCW users



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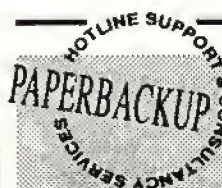
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